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MERCHANT PLUMBER AND FITTER

DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUM CLEANING

Volume III. No. 1.
Semi-Monthly.
10c. a Copy. $1.00 Per Year.

NEW YORK, DECEMBER 25, 1912.

Entered as second-class matter December 28, 1911, at the post office at New York, N. Y., under act of March 3, 1879.

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Bowls Have Enameled Rims

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Published Semi-Monthly at 300 Fifth Ave., New York, N. Y.

NEW YORK, DECEMBER 25, 1912.

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THOMAS HAVERTY, SAN FRANCISCO, CAL.

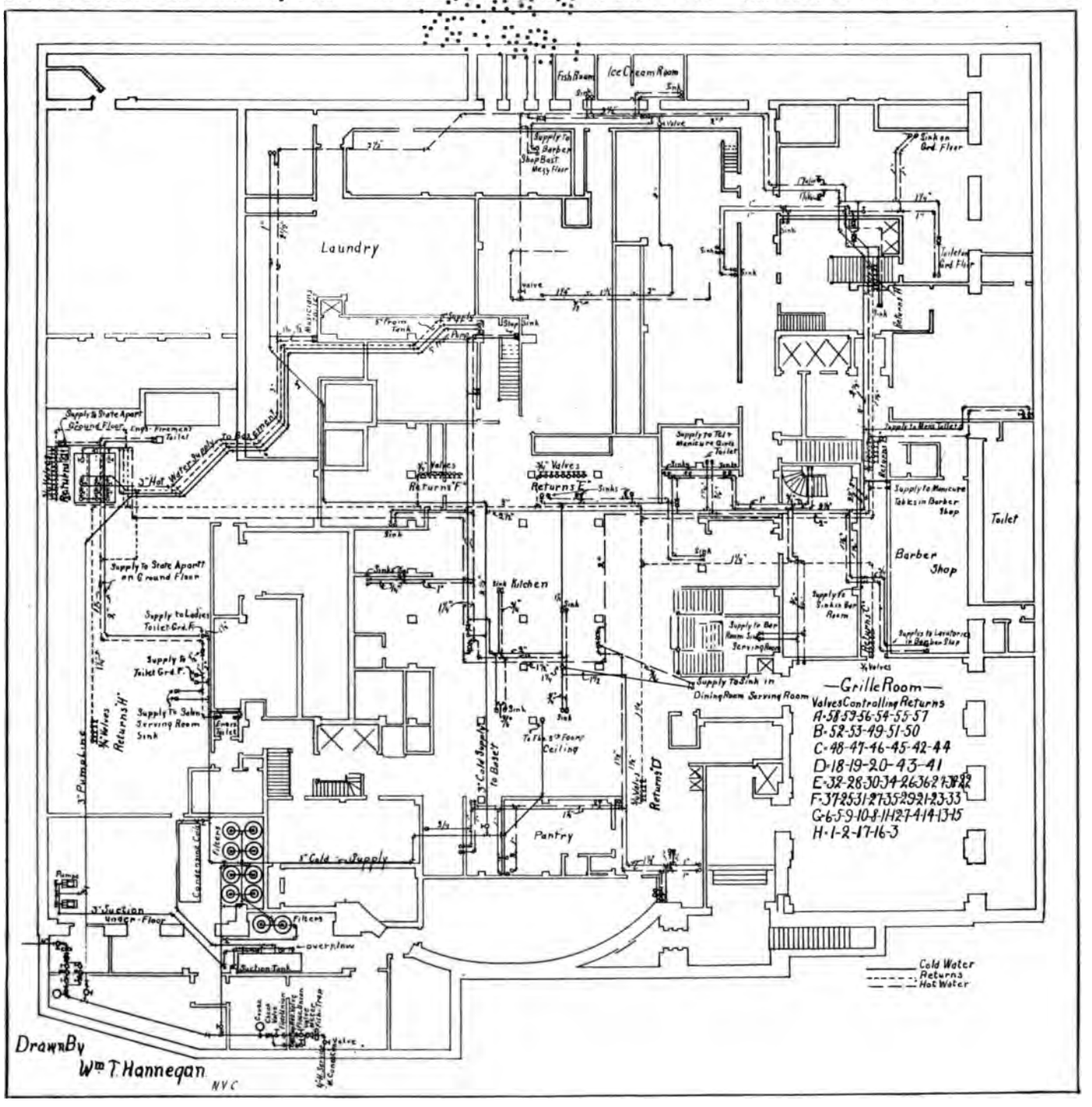
Director of the National Association of Master Plumbers

Plumbing of the Copley-Plaza Hotel.

THE Copley-Plaza Hotel at Boston, Mass., has been very recently opened for service to the traveling public. On Aug. 9 the management of this spacious and elegant hotel issued invitations to the citizens of Boston to come and inspect what they had prepared for their comfort and entertainment at an expenditure of $6,000,000. The hotel has been visited by President Taft and President-elect Wilson and by all the prominent people of New England, and the traveling public at large, and one and all have acclaimed its beauty and artistic accoutrements.

We could fill several pages with the description of the beautiful ballroom, dining-room, state suite, grill room, and other appurtenances of a modern hotel, but we feel our readers would rather be treated with a description of the mechanical equipment, especially of the plumbing work, so we will try to describe what has been acclaimed as the very latest sanitary engineering and plumbing.

There are over 400 sleeping rooms throughout the hotel, and each room is equipped with a bath which consists of a five-foot porcelain tub set in the wall with tile wainscoting and with supply and waste fixtures concealed in a specially arranged shaft, so that nothing is exposed on the face of the wall except the white metal handles which regulate the flow of water into the tub and the waste of water from the tub. The valves and waste fittings are concealed in this special shaft, which has been enclosed by a solid mahogany panel with door, so that all valves and fittings



PLAN OF THE WATER SUPPLY IN THE NEW COPLEY-PLAZA HOTEL, BOSTON, MASS.

Plate 2000

No Metal To Catch Dirt
No Metal To Keep Clean

Thomas Maddock's Sons Co.

Oldest Sanitary Potters in America

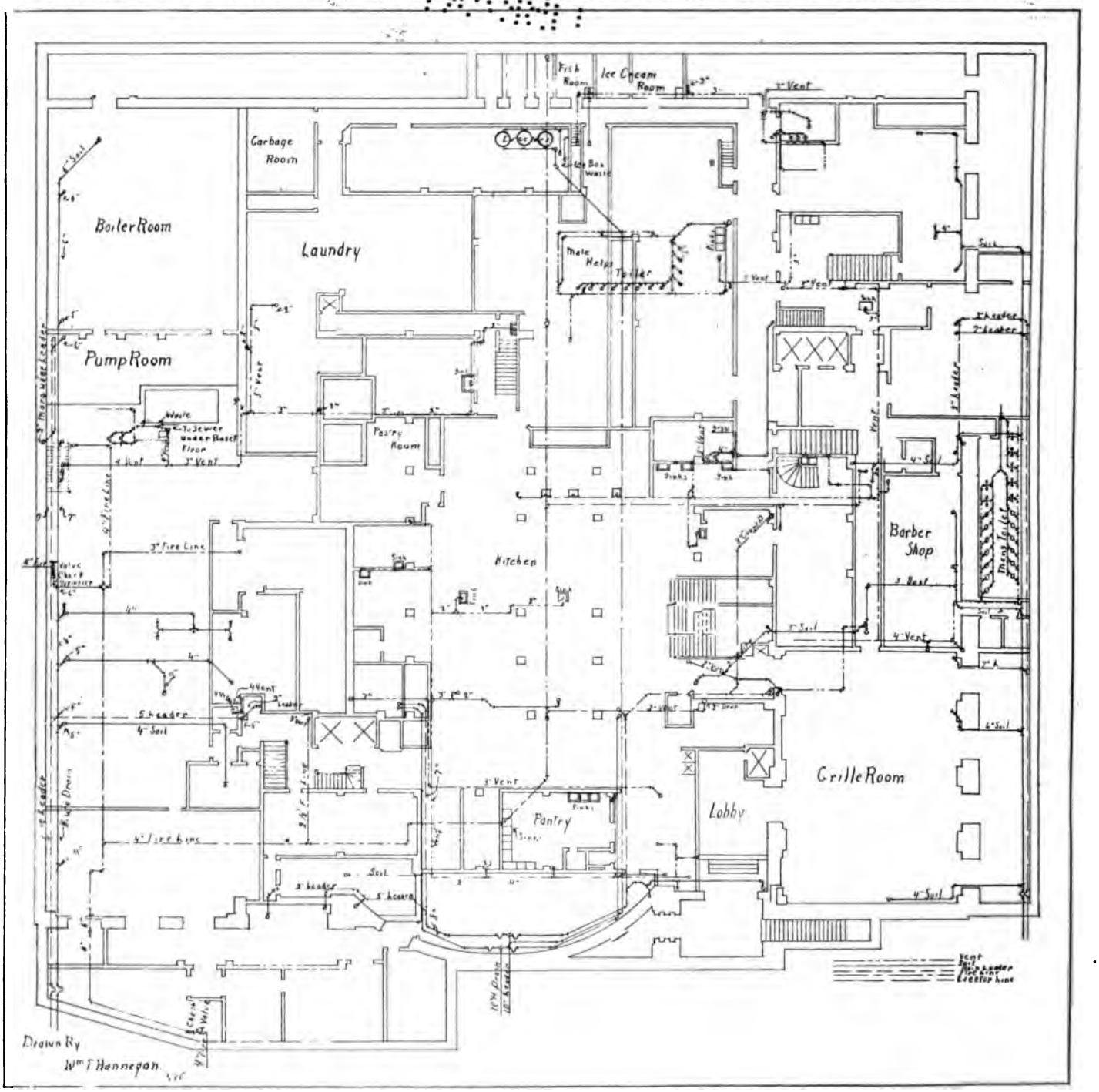
Established 1859 **TRENTON, N. J., U. S. A.**

Architectural Catalogue maintained in the Building Trade Catalogues. (A. B. C. system—Section 35-B; Catalogue 5)

may be readily reached for repair purposes without inconveniencing either the patrons of the hotel or the construction of the plumbing. The lavatory is a solid porcelain one, 31 inches long and supported on solid porcelain legs, with white metal waste and supply trimmings. This lavatory, with its specially designed curved front and specially designed legs, together with its handsome white metal trimmings, makes it a very beautiful and durable fixture. The water closet is of a syphon-jet type with flush valve controlled with a push button, the flush valve being contained in the earthenware of the water closet bowl. All fixtures are separately controlled by an exposed white metal valve.

The plumbing work was installed by the W. G. Cornell Co., whose reputation for large work is well known to all architects and builders. The engineering corps of the W. G. Cornell Co., which is the finest in the country, spent a great deal of time and care evolving a scheme of mechanical equipment which would not only serve the patrons of the hotel efficiently and thoroughly, but would for all time present a lasting and durable mechanical construction for the hotel. A separate system of drainage has been installed to take care of the immense amount of plumbing fixtures necessary for the kitchen and laundry departments of the hotel. A separate system has also been installed for the plumbing fixtures, which are situated below the level of the street. Both of these systems empty into three duplicate systems of ejector apparatus, each unit being capable of emptying 100 gallons of sewage per minute into the sewer in the street. This sewage system is of the Shone pneumatic type, and each unit has a separate air compressor and air receiving tank.

The hot-water supply for the hotel is furnished by three 1,500-gallon instantaneous water heaters; each heater has a separate by-pass and connection with the main hot-water supply, so any one heater may be cut off without interfering with the other heaters. The water is supplied from a tank located on a pent house on the roof. This tank has two compartments and has a capacity of 5,000 gallons of water. The water to this tank is supplied by a duplicate set of pumps which takes the water, which is first sent through the condensing coil of the ice-refrigerating plant, from where



BASEMENT PLAN OF THE PLUMBING INSTALLED IN THE COPLEY-PLAZA HOTEL, RECENTLY COMPLETED IN BOSTON, MASS.

Approved by the Philadelphia Board of Health

THE IMPROVED "I X L"

Anti = Freezing, Low Down Combination

(Plate 4 I X L Patent Applied for.) TRADE MARK I X L

The "I X L" Anti-Freezing Closet can be installed very quickly, it is simple, not complicated, nothing inside of tank but the stand pipe, gives no trouble, is cheaper, infringes no patents. Can as much be said for others?

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"I X L" PUMP & MANUFACTURING CO.

Patentees and Makers

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it is delivered into the suction tank, from which point it is pumped to the roof.

The cold water is also duplicate in its construction, auxiliary mains being installed from the city service in the street and supplied to the house directly from the street pressure.

In fact, all portions of the mechanical equipment of the plumbing work is furnished in duplicate, so that the service of the house can never be seriously crippled.

The water used throughout the house is first filtered before it passes through the mains, this being done through the means of 10 Loomis-Manning filters erected in pairs of five. The large amount of filtered water supplied by this immense filtering plant is capable of furnishing all the water desired, at the same time allowing the hotel the privilege of shutting off and bypassing each pair of filters, in order that they may be constantly cleaned to insure a pure supply of drinking water.

The W. G. Cornell Co., of New York, Boston and Washington, D. C., was awarded this immense contract, which is the largest contract for plumbing work ever awarded in New England. No expense was spared by them, or the architect, to give the hotel the finest possible plumbing equipment in the country. The facilities of the W. G. Cornell Co. are such that they can offer to the owner, architect and builder the services of an organization which is capable of installing the complete mechanical equipment of any building. In closing we might say that it is not coincidence only which has enabled the Boston branch of the W. G. Cornell Co. to secure the largest and best contracts for plumbing work throughout the New England States.

Since Septehmer, 1908, the date of its organization, this splendid and able corps of engineers have installed the plumbing work in the most pretentious public and private buildings in New England, among which may be mentioned the following: Town Hall, Clinton, Mass.; Administration Building, Simmons College; addition Suffolk County Court House; new Jordan Marsh store; Library Building for Wellesley College; State Capitol, Concord, N. H.; Peerless Garage; Wool Warehouses, South Boston; Chilton Club Building; Lawrence Building; N. E. Telegraph & Telephone Co. Building, Fort Hill Sq., Boston; Army and Navy Y. M. C. A., Newport, R. I.; house and stable for F. L. W. Richardson, Charles River, Mass.; house for J. Harrington Walker, Magnolia, Mass.; Minot Building; addition to Essex Hotel; addition to South Station; Gloucester Apartments, Boston; National Bank, Northampton, Mass.; Nurses Home for Massachusetts General Hospital; service buildings for Edison Electric Illuminating Co.; dormitory for Wellesley College, Wellesley, Mass.; Merchants' National Bank, Boston; City Hall Annex, Boston.

The following manufacturers supplied the plumbing goods installed in the Copley-Plaza Hotel: Plumbing fixtures, Federal-Huber Co., of Chicago and New York; bathroom accessories and mirrors, J. P. Eustis Mfg. Co., of Boston; sewerage ejector, Shone Co., of Chicago; hot-water heaters, I. B. Davis & Son. of New York; water filters, Loomis-Manning Filter Co., New York; brass pipe for hot and cold water, American Tube Works, Boston; pumps, Henry R. Worthington; house and suction tanks, Geo. E. Sealey Co.; valves, Chapman Valve Mfg. Co.; pipe covering, Philip Carey Co.; pressure reducing valves and ball cock, Thos. P. Ford Co., New York; fire hose, Enterprise Rubber Co., Boston; fire hose racks, H. J. M. Howard Mfg. Co., Washington, D. C.; manicure fixtures, J. L. Mott Iron Works.

Albany, N. Y., Banquet to Be Held Jan. 23, 1913.

THE event of New York State plumbing circles is the annual banquet of the Albany Master Plumbers' Association. All associations in the State are usually represented, and this year promise is given that a bigger turnout than ever will be the experience.

The following is a copy of a letter which has been sent out by the committee in charge of the banquet, and is self-explanatory.

Albany, N. Y., Dec. 14, 1912.

Editor MERCHANT PLUMBER AND FITTER:

Dear Sir—The annual reception and dinner of the Master Plumbers' Association of Albany, N. Y., will take place at the Ten Eyck on Thursday evening, Jan. 23, 1913. The guest of honor will be Mr. Frank B. Lasette, of New York City, president of the State Association of Master Plumbers. The reception will begin at 7:30 and the dinner at 8 o'clock sharp.

The program is now under preparation, and as it is desired to place thereon the names of all those who participate, it is necessary that applications for seats be promptly forwarded to the chairman of the committee on arrangements, Mr. Frank F. Schimpf, 68 Washington Ave., this city. The assessment has been fixed at $6, which should accompany each acceptance, the form of which, with stamped envelope for return reply, is herewith enclosed. Dinner tickets will be mailed to those who favorably respond, and a good time is assured every one who attends. May we hope to enjoy the pleasure of your company on this occasion, as well as your co-operation in our efforts to render due honor to our distinguished guest, and make this event, like those of the preceding years, one ever to be remembered. Awaiting your favor of reply, we remain, very truly yours, Frank F. Schimpf, chairman; James H. Doody, secretary; James J. Gorman, Charles E. Walsh, T. E. Kerwin, Wm. Brannion, Joseph Noord, Thomas F. Nolan, J. Kieley, Wm. Miller, committee on arrangements.

Utica Plumbing Inspector's Report.

DURING the 11 months of 1912 residents of Utica, N. Y., put in 1,068 waterclosets, 638 bathtubs and 747 washstands, according to the report submitted to Commissioner of Public Safety Church by Plumbing Inspectors Frank Gardiner and George H. Schaub. The report is as follows:

Number of permits issued for sewer connections, 277; sewer inspections, 301; specifications for plumbing work filed and approved, 7; inspections for rough plumbing work, 687; inspections and found defective, 31; reinspections and found remedied, 31; final inspections, 127; final inspections, and found defective, 10; final inspections and found remedied, 9; complaints for defective drainage, 236; complaints for defective drainage found remedied, 236; total number of inspections, 1,675; water closets put in, 1,068; bath tubs put in, 638; wash stands put in, 747; urinals put in, 16; wash trays put in, 108; sinks put in, 7; conductors put in, 649.

The report of the inspectors for the month of November shows the following statistics: Number of permits for sewer connections, 14; permits for sewer inspections, 17; inspections rough plumbing, 65; inspections and found defective, 3; reinspected and found remedied, 3; final inspections, 5; final inspections and found defective, 1; complaints of defective drainage, 13; complaints of defective drainage and found remedied, 13; total inspections, 120; waterclosets put in, 100; bath tubs put in, 83; wash stands put in, 82; wash trays put in, 8; sinks put in, 96; conductors put in, 106.

High School Heating Contract.

THE school committee of Saugus, Mass., has awarded the contract for installing steam heating apparatus in the laboratories of the high school building to Stone, Underhill Co., of Boston, for $390. The original estimate on this job submitted by this concern was $483, and this amount was appropriated at the last special meeting. Chairman Harry T. Turner succeeded in getting that concern to reduce the original bid to $390. The contract calls for several radiators in both the physics and chemistry laboratories in the building, the installation of separate feed pipes to them and the enlargement of the steam boiler in the basement.

New Branch House at Atlanta.

THE H. W. Johns-Manville Co., of New York City, has recently opened a new warehouse at 81½ S. Broad St., Atlanta, Ga., adjoining its offices in the same building. This will greatly facilitate the delivery of the company's products throughout the southern territory.

C. S. Berry has been appointed manager and will supervise the H. W. Johns-Manville Co.'s interests in the south.

Whitlock Coil Pipe Sells Part of Business.

IT became known Dec. 16 that the Whitlock Coil Pipe Co., of Elmwood, has sold its plumbing and supply department to Mitchell S. Little, of 339 Laurel St., the secretary of the company. Mr. Little last night said that the papers were signed on Dec. 6. The department, which employs between 20 and 25 men, makes a specialty of manufacturing bands for various kinds of plumbing connections. At the present time Mr. Little is operating the department in the plant of the Whitlock Coil Pipe Co., but later may decide to move to another location.

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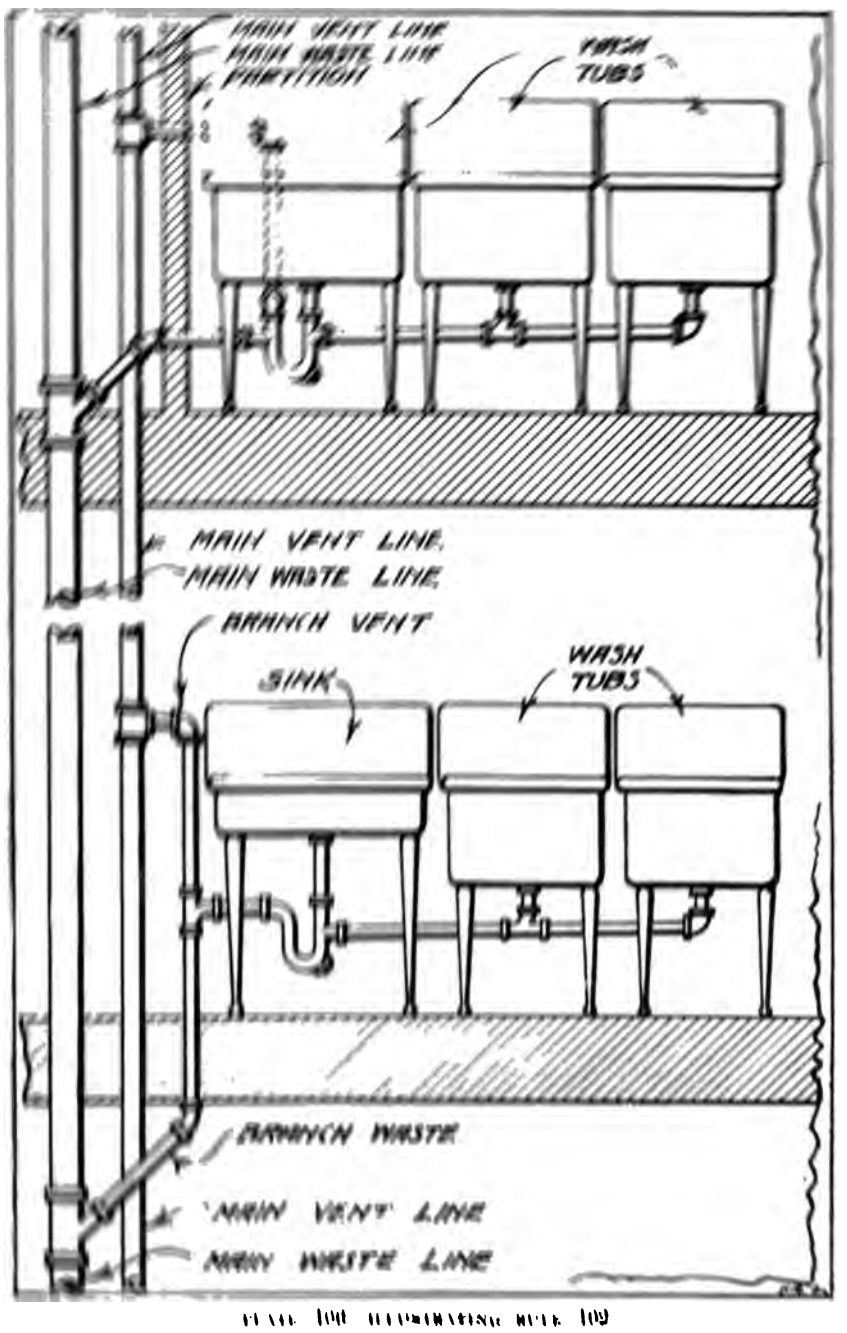

PLATE 102—ILLUSTRATING RULE 109.

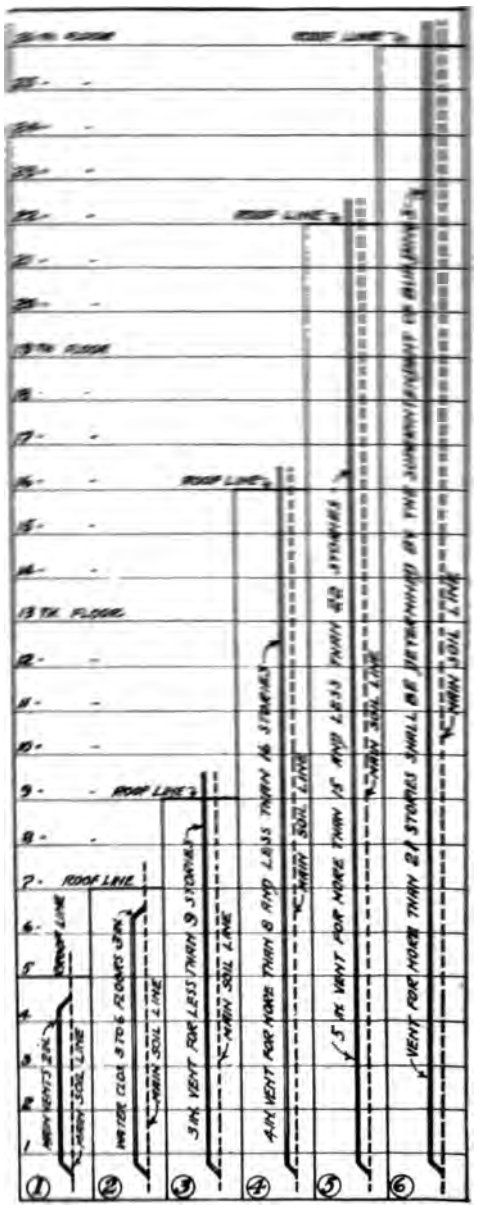

PLATE 103—ILLUSTRATING RULE 97.

the floor is noted. The double heavy perpendicular lines with offsets at bottom and two at top of the first two stacks, are the main vent lines, the sizes of which we wish to determine depending upo the height of the building.

The heavy dotted perpendicular lines indicate the main soil or waste lines, run in conjunction with these vents and to the

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   Obtained by a large filtering area.
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   Each cylinder controlled by a single valve, making no expert care necessary.
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   By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.

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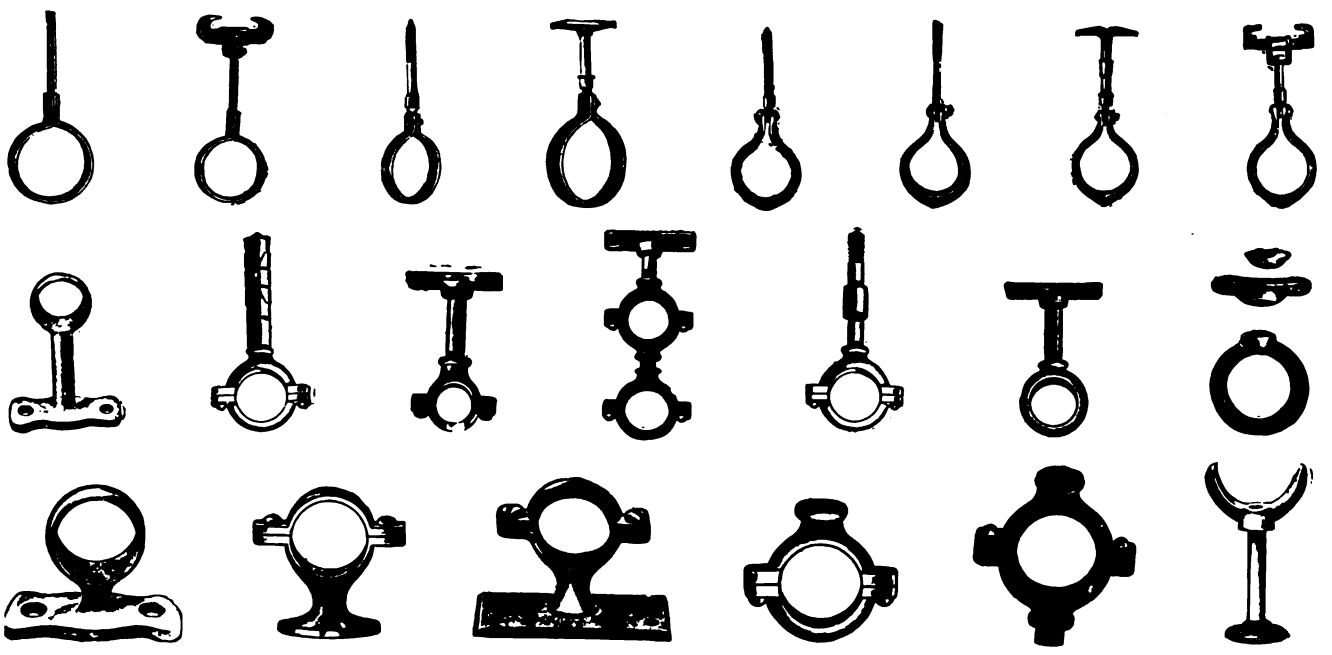

bottom or base of which are connected the main vent lines.

Number 1 stack as indicated by Fig. 1 in circle at bottom of diagram shows a two-inch main vent (the minimum size) extending through four floors and connected at top and bottom with its adjoining soil or waste line. For this size vent, two inches, we can have water-closets on two floors only, but are allowed to connect other fixtures to the main vent.

Number 2 stack shows the vent extending through six floors, and if we have water-closets on three or more floors the vent must be three inches in diameter, connected to main soil at bottom and top; this top connection is not permitted when there are fixtures on more than six floors.

For fixtures, other than water-closets, on less than seven floors, the vent may be two inches in diameter, similar to stack 1, but the main vent must extend through roof separately and be increased in diameter, as shown previously.

Fixtures including water-closets may have a three-inch vent up to eight stories, as denoted by stack No. 3.

Stack No. 4, up to 15 stories must have a four-inch main vent; stack No. 5, up to 21 stories a five-inch main vent, and stack No. 6 for more than 21 stories. We show it 25 stories; the size of main vent must be determined by the building superintendent, as stated before.

In skyscrapers where we have fixtures on a line other than slop-sinks and water-closets on more than eight stories, the main vent pipes may be one inch smaller in diameter than shown on stacks Nos. 4, 5 and 6, Plate 103.

Now for the long horizontal branch vents or "main" branch vents illustrated on Plate 104. This cut shows a battery of water-closets on the upper floor and a battery of lavatories on the lower floor, with their branch wastes and vents connected in the usual manner with the main soil and vent lines.

The main branch vent or header receiving the four two-inch branch vents from the lead bends may be two inches in diameter also if the horizontal run does not exceed 25 feet, as indicated by "A" just above main branch vent. When this header is more than 25 feet in length, but not exceeding

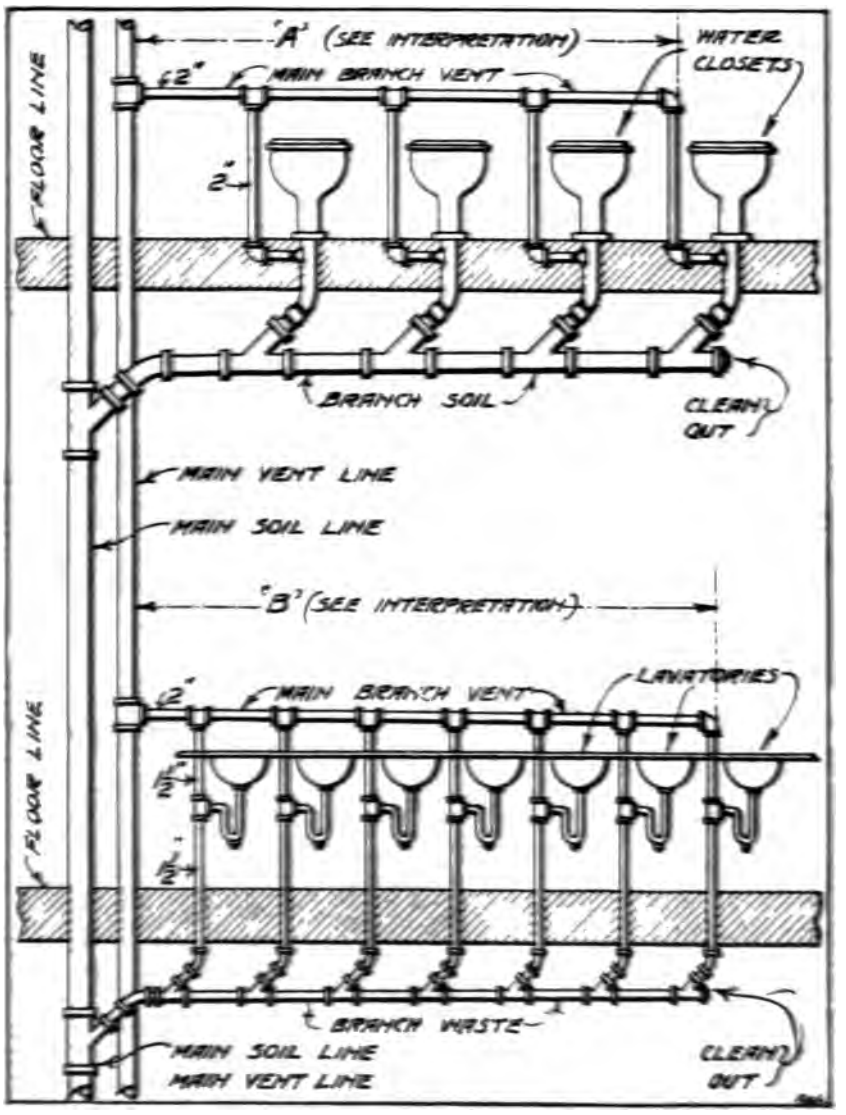

PLATE 104—ILLUSTRATING RULES 97 AND 98.

50 feet, it must be three inches in diameter, and we cannot have a main branch vent more than 50 feet in length. Main or perpendicular vents cannot be of less diameter than the largest branch vent connecting to same. That is, if we have only two doors upon which are water-closets and other fixtures, ordinarily a two-inch main vent would be sufficiently large, but

No. of branch vents	TABLE SHOWING THE MAXIMUM NUMBER OF BRANCH VENTS FROM TRAPS OF FIXTURES, THAT MAY BE CONNECTED TO MAIN BRANCH VENTS.
2	1½ INCH BRANCHES ON A 1½ INCH MAIN BRANCH.
4	2 INCH BRANCHES ON A 2 INCH MAIN BRANCH.
7	1½ INCH BRANCHES ON A 2 INCH MAIN BRANCH.
2 — 2" 4 — 1½"	} INCH BRANCHES ON A 2 INCH MAIN BRANCH.
1 — 2" 5 — 1½"	} INCH BRANCHES ON A 2 INCH MAIN BRANCH.

PLATE 105—TABLE IN CONJUNCTION WITH RULE 98.

on account of the extra long main branch vent not exceeding 50 feet in length, we must make it three inches in diameter and the perpendicular main vent the same size also.

The main branch vent for the lavatories on lower floor must be taken care of in the same manner. The main branch vents apply to all fixtures.

To determine the number of fixtures whose vents from traps or lead bends may be connected to a certain size main branch vent or header see the following rule and its interpretation:

Rule 98. When the plumbing fixtures installed in any building are arranged in groups or batteries, and the number of branch vents from the traps of fixtures connecting to any main branch vent exceeds the number and size given in the following table, a three-inch main branch vent must be provided for the additional vent connections.

Plate 105 is the table showing the maximum number of fixtures whose branch vents from traps may be connected to a main branch vent or header up to two inches in diameter. By referring to Plate 104 which shows the horizontal or main branch vents, it also shows the number of fixtures whose branches from traps or lead bends may be connected to the main branch vent or header. As stated in the table Plate 105, four two-inch branches may connect with a two-inch main branch vent, and this is shown in Plate 104—the water-closet vent connection. The table Plate 105 also states that seven 1½-inch branches from fixture traps may connect with a two-inch main vent header, and this is shown on Plate 104, the basin or lavatory vent connection.

Rule 99. No form of trap will be permitted to be used unless it has been approved by the Superintendent of Buildings.

Many traps have been designed and invented containing mechanism, partitions, doors, etc., largely done to keep them constantly clean and to prevent the escape of sewer gas into the building. Others to automatically flush the fixture at stated intervals or every time the fixture is used, and for various other sanitary reasons, but on being put to a severe test most of these contrivances are found to be impractical. Some forms of traps, of course, have been found worthy of installation, and have been approved by the building department

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ADVANTAGES OF AN INDUSTRIAL LOCATION

This railroad extends from the coal fields of Pennsylvania to connections with all the great railroads of Canada and the Eastern trunk lines; provides a fast freight service to the East, West, North and South, and parallels the upper Hudson River, also the new two-thousand ton barge canal connecting the river with Lake Champlain, now being built by the state. An establishment located in this territory receives the benefit of cheap fuel, electric power and low freight rates.

Its Industrial Department will aid in the establishment of industries, develop side track questions and give complete information.

IRA H. SHOEMAKER
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is practically indestructible. The "DIRIGO" is made from pure heavy gauge copper and locked seamed. All joints and seams are of sufficient rigidity to prevent the ball from collapsing under any conditions that surround its use in closet tanks. *We will always cheerfully replace any imperfect Float that in spite of our caution passes inspection.*

Offered to the trade at a reasonably low price. Our experience proves that its merits have been appreciated by the trade. Just the kind of a Float you want. Not a particle of solder or other material used in its construction. Guaranteed ABSOLUTELY WATER-TIGHT. It can be procured from all first-class dealers in plumbers' supplies.

Solderless Copper Float Co.

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...plumbing ... along to which consider ... and to ... [illegible] ... being studied deeply ... master engineers has the time ... not the future when ... fixture style of trap, and its ... will no doubt not only ... with ... supplant the ordinary kind ... use at the present time.

... [illegible] ... permitted ... that ... all ... chamber ... [illegible] ... for ... tide valves will only ... [illegible] ... the ... that ... necessary ... type ... [illegible]

... Rule 10 in describing forms of traps ... permitted, the same ... under this Rule 10) no ... allowed with interior mechanism, and the only kind of traps that depend on an interior partition for a seal that may be used are those constructed of earthenware and used for water closets and slop sinks.

In reference to backwater or tide valves, these unreliable devices are indeed a source of great danger not only to the house sewers and house drains but to the occupants of any building and to the building itself, from the overflow of the worst kind of sewage through the traps of fixtures located not far enough above the floor or high tide mark. Where these valves are used and they fail to respond or prevent the sewage from backing up into the drains, it is the very worst decomposed matter for the reason that it is generally near a river front, where the main sewers in streets discharge their contents that these tide valves are used, and the soil matter is the accumulation of the drainage of thousands of buildings. They should never be used, instead, a sump or receiving tank should be installed to receive the contents of drainage system and then ejected into a house drain or sewer high enough above the main sewer in street so that there would never be any danger of sewage backing up. We would never for a minute think of discharging a first or second sub-cellar drain directly out into a main sewer in street, but first, empty into a sump tank and then eject the contents into the house drain or house sewer many feet above the sub cellars and main sewer in street. Only about two years ago when a large building on Canal St. was completed and the people began moving in, they found the cellar in such condition that to store anything there with safety was an impossibility. Tide valves had been installed on the drainage line or perhaps they had none, but at any rate, the sewage from the street got in its deadly work. A high official very much connected with the construction of the building died very suddenly at this time, and whether from worrying over the infection instalment of the plumbing system or from natural causes, his death is to be regretted.

Rule 101. Every fixture must be separately trapped by a water sealing trap, and the trap placed not more than two feet from the outlet of the fixture.

By referring to Plate 101 you will see the lavatory traps located as described in the above rule.

Rule 102. A set of wash trays may connect ... [illegible] ... sink ... [illegible] ... waste ... [illegible] ... waste ... [illegible] ... sink. This latter illustration shows the ... it is described in Rule 102, all three ... into the same side of the main waste and vent line.

... [illegible] ... sufficient for the set of three wash trays is shown at top of Plate 102.

Specifications for Plumbing, Fixtures, Etc.

Prepared by the Board on Uniform Plumbing Specifications for the Treasury, War and Navy Departments

Galvanized-Steel Sink (Plate No. 37).

SINK No. 60 B to be of galvanized sheet steel with integral back, of dimensions shown.

Sink to have rolled rim on front and end corners, with back having hollow space in rear for supplies.

Legs and frame.—Sink to be supported on and riveted to steel angle frame, galvanized. Frame to be secure to masonry floors with ½-inch brass expansion bolts, not less than three inches long, and to wood floors with heavy screws.

Trap. Sink to have on waste a 2-inch brass waste outlet with strainer bars and ground-joint brass stopper; cast-iron grease trap of capacity as shown. Trap to be constructed of cast iron, enameled inside, painted one coat of lead and oil at the factory and one coat of lead and oil and two coats of enamel paint when installed. Cover to be full size of trap and to be secured by thumb screws, so as to be easily removable and yet be water-tight. The waste inlet and outlet to be near the bottom. The trap is to be surrounded on sides and bottoms by a water jacket, to the inlet of which a ¾-inch cold-water supply is to be connected and from the outlet connected to the cold-water faucet of sink. Wall or floor outlet to be furnished to suit conditions. The nipples and pipe connections between trap and concealed piping to be annealed, drawn brass, full iron pipe size, with screw-threaded joints throughout, and finished cast-brass nickel-plated wall or floor plates.

Faucets. Each sink to be provided with hot and cold ¾-inch water finished brass nickel plated faucets of the "Fuller" pattern, and so made that the same can be readily taken apart for repairs, with adjustable flanges. Mechanism of faucets to be perfect in every respect. The eccentric and stem of faucet to be perfectly fitted and the gum ball to be secured to stem with cone shaped expanding washer and substantial brass nut. Packing nut and gland to be so designed that a water-tight easy moving joint will be obtained. Cold-water faucet to be provided with ¾-inch hose connection, as shown. Each supply to be fitted with a finished brass nickel-plated gate valve placed in an accessible position. All exposed metal work to be heavily nickel plated. Pipes from faucets to supply mains to be as called for in the specifications for the work.

Plug and chain and chain stay. Each sink to have a brass, nickel-plated chain and chain stay, of the size noted, set opposite center of sink. The plug chain to be attached to the chain stay, which will be secured to back of sink. The rings attaching plug and chain stay to chain are to be well soldered.

Soap cup.—Soap cup to be galvanized cast iron, with ribs inside and perforated bottom, secured to back of sink.

Outfit No. 60 B sink with back, etc.

A Sad State of Affairs.

OHIO State Building and Factory Inspector William Unlack has condemned the Bedford School, stop 11½, Akron, Bedford & Cleveland line. In the report he filed Oct. 9 with the chief inspector at Columbus, he charges that the school, which is composed of two buildings, is not provided with proper heating, lighting and ventilating, is overcrowded, and toilet facilities are unsanitary. He recommended the school be closed unless conditions are remedied.

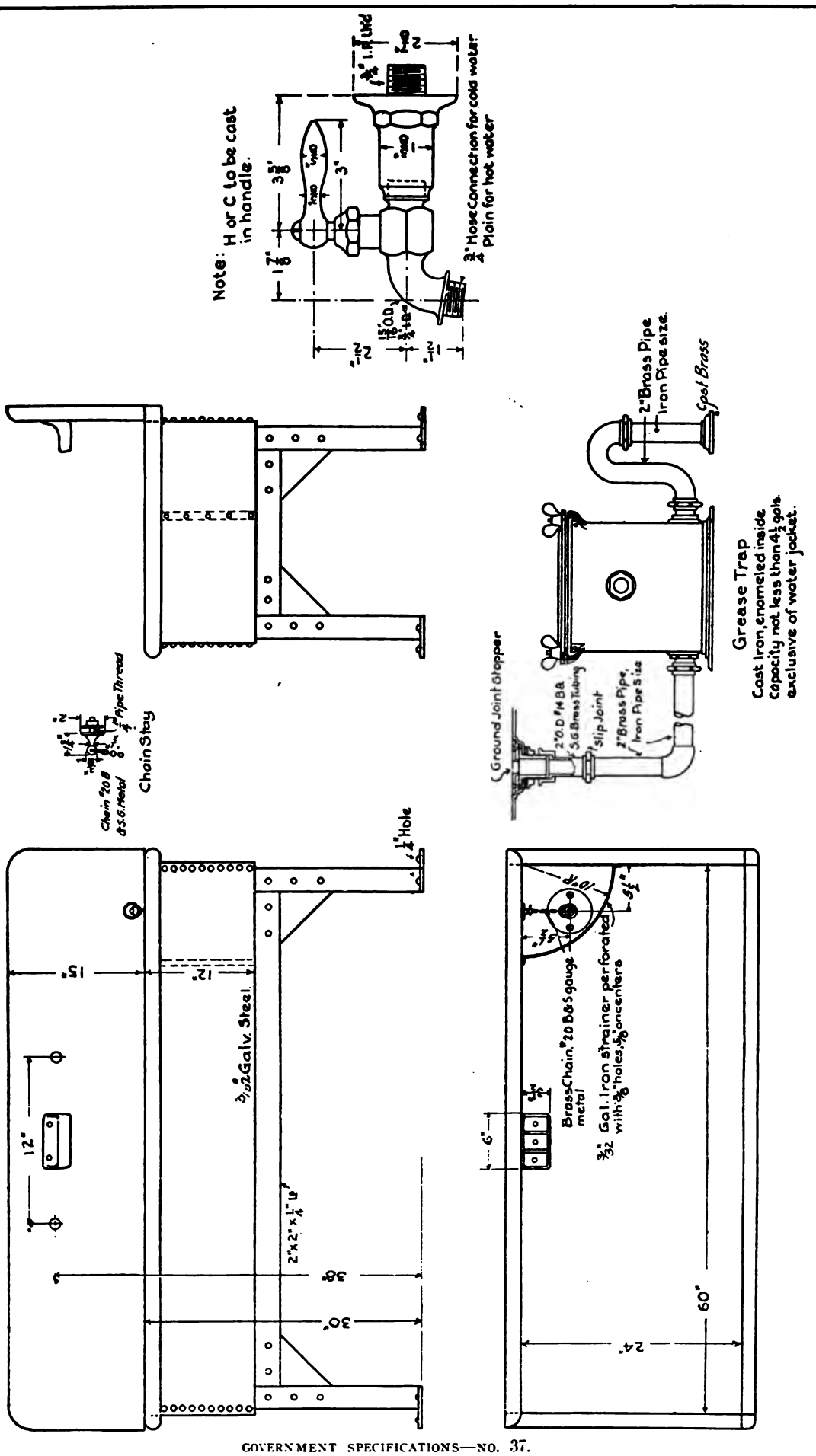
It was found that a 13-year-old girl, Myrtle Cain, was janitor of the building and her salary 10 cents a day. The Bedford Board of Education leaves the hiring of a janitor to one of the teachers, Miss Ruby Alexander, who pays the girl out of her own salary.

The school rooms are heated by a large stove. Mothers claim that their children have been made sick sitting so close to the heat.

"During the recent cold snap my daughter, who sat next to the stove, would come home fairly wilted," said G. A. Hoefler, who has two children attending the school. "I have often wanted to complain about the conditions but did not know to whom to bring my complaint."

"Where I sit the floor is icy cold," said Grace Maresh, daughter of Attorney A. A. Maresh, Wick building.

Superintendent O. Kurtz of Bedford schools concedes that the school is greatly overcrowded, poorly heated and equipped with unsanitary toilet facilities, and says he can only hope to remedy the evil.



GOVERNMENT SPECIFICATIONS—NO. 37.

Engineers Visit the Testing Station Plant of the H. B. Smith Co. and the Mason Laboratory.

THROUGH the activities of James A. Donnelly, a member of the committee on tests of the American Society of Heating and Ventilating Engineers, invitations were extended to all members of the New York and Boston chapters for the purpose of inspecting the ventilation plant of the International Y. M. C. A. College at Springfield, Mass.; the testing station and the boiler and radiator manufacturing plant of the H. B. Smith Co. at Westfield, Mass., and the Mason Laboratory of Yale University at New Haven, Conn. The invitation to visit the International Y. M. C. A. College was issued through the kindness of D. D. Kimball, of the D. D. Kimball Co., consulting engineers, and Prof. Lester Paige Breckenridge had extended the invitation to visit the Mason Laboratory.

RECORDING APPARATUS AND RECORDS AT H. B. SMITH CO. PLANT.

Accordingly a delegation from the New York chapter assembled on the afternoon of Dec. 11 and decided to take a chance of arriving at their destination at Springfield, Mass., in a sane and safe condition. The party was made up of the following-named gentlemen: J. I. Lyle, Conway Kiewitz, Frank T. Chapman, James A. Donnelly, C. Teran, George Schmidt, Frank K. Chew, editor of *Metal Worker, Plumber and Steam Fitter;* Charles J. Lang, T. F. Murphy, J. C. Faulkner, New York manager of the H. B. Smith Co., and Assistant Manager Charles A. Miller.

On arriving at Springfield the party was joined at the Kimball House by President Frank I. Cooper of the Massachusetts chapter, Secretary James W. H. Myrick, A. B. Franklin, W. M. McKenna and J. G. Bresnahan, of Boston, and T. J. Morris, a heating contractor of Springfield.

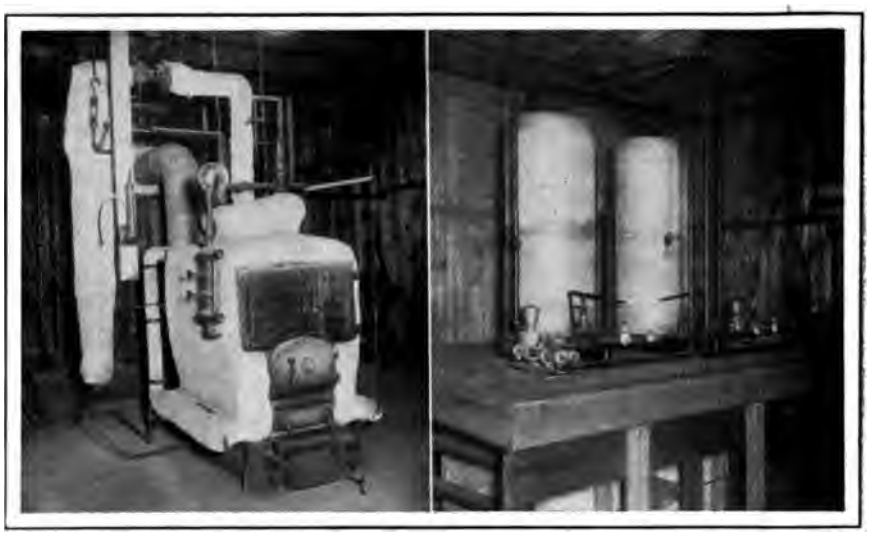
After a sumptuous repast at the Kimball House a visit was made to the International Y. M. C. A. Training School in that city. Special interest attaches to the ventilation of the gymnasium of that institution from the fact that Dr. J. H. McCurdy, the head of the physical department, attended the annual meeting of the American Society of Heating and Ventilating Engineers in New York City last January and gave some account of the tests which he intended to have conducted to determine the effect of different conditions of ventilation on the pupils exercising in the gymnasium. Dr. McCurdy was aided in receiving the party by G. B. Affleck, professor of hygiene, and J. F. Simon, superintendent of the building.

After listening to a brief description of the equipment the party inspected the plant, which consists of banks of Vento radiation, a Webster air washer and American Blower Co. fans capable of discharging into the building 40,000 cubic feet of air per minute, of which 25,000 cubic feet is sent to the new gymnasium and the remainder to the old gymnasium.

The guests were well pleased when they saw the plant in full operation, and on their entrance to the new gymnasium, which has approximately 150,000 cubic feet of space, a flash smoke cartridge was set off to show how quickly all trace of the smoke would be eliminated from the room. The visitors commented on the large amount of space provided in the gymnasium per pupil and also the large amount of air supplied to the average number attending the gymnasium classes.

On Thursday morning the party, in charge of J. C. Faulkner and C. A. Miller, boarded trolley cars for Westfield. After an hour's ride the party arrived at the celebrated "Pure Food Town" and was welcomed by R. D. Reed, the acting host for the H. B. Smith Co., and F. McGinnis, the engineer in charge of the company's testing station. The party was immediately conducted through the radiator plant of the company, and to some of the party its magnitude was somewhat of a surprise. The main molding floor is 800 feet in length. The core shop has its ovens in the center, with the furnaces on the floor below, and all around the shop are the workbenches and machines for making radiator cores.

A novel feature of the shop is an overhead crane which makes a complete circuit of the shop without turning any corners and which is used for lifting the green cores from the racks adjoining the workbenches and conveying them to the cars which carry them into the core ovens for baking. Finished cores are transported to the foundry on an overhead tramway, and at the end of each floor are racks on which cores are hung convenient for the use of the workmen.



Mills Boiler ready for test. Water measuring equipment.

VIEWS IN TESTING STATION AT H. B. SMITH CO. PLANT.

The journey was then from one end of the long foundry to the other, during which the making of the different styles of direct and indirect radiators was observed. The

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next department visited was the brass finishing shop. Here attention was called to the machines for automatically finishing the openings so that when connected with the malleable iron slip nipples used by the company in all of its radiators they can be quickly assembled in one radiator without danger of a sufficient strain to cause a leak.

The party was interested in the preliminary tests given to the radiators so that defective casting can be discarded before any expense is put on them. After the radiators are finished they are subjected, first, to a cold water test and then a steam test which gives an extreme change of temperature to test for expansion and contraction. For the benefit of the party the testers subjected some of the radiators to a water pressure test several times higher than is usually applied.

Some of the accompanying views give an idea of the character of apparatus used by Mr. McGinnis in the exhaustive tests to which he subjects the boilers and radiators made by the company. These tests include a flue gas analysis to determine the character of the combustion and whether or not fuel is wasted. Other tests show the steam made from fuel consumed. One view shows a boiler ready for testing. Another shows the water measuring and weighing apparatus used in all tests. The chamber in which indirect radiators are tested is shown in another illustration. At one end is a motor which drives a fan.

VIEW IN BOILER TESTING DEPARTMENT OF MASON LABORATORY.

VIEW IN TESTING STATION FOR HEATING APPLIANCES AT MASON LABORATORY.

The upper floor of this testing station is utilized for testing direct radiation, and in addition to the radiators under test there is a number of other radiators through which cold water may be circulated to keep the temperature of the test room constant.

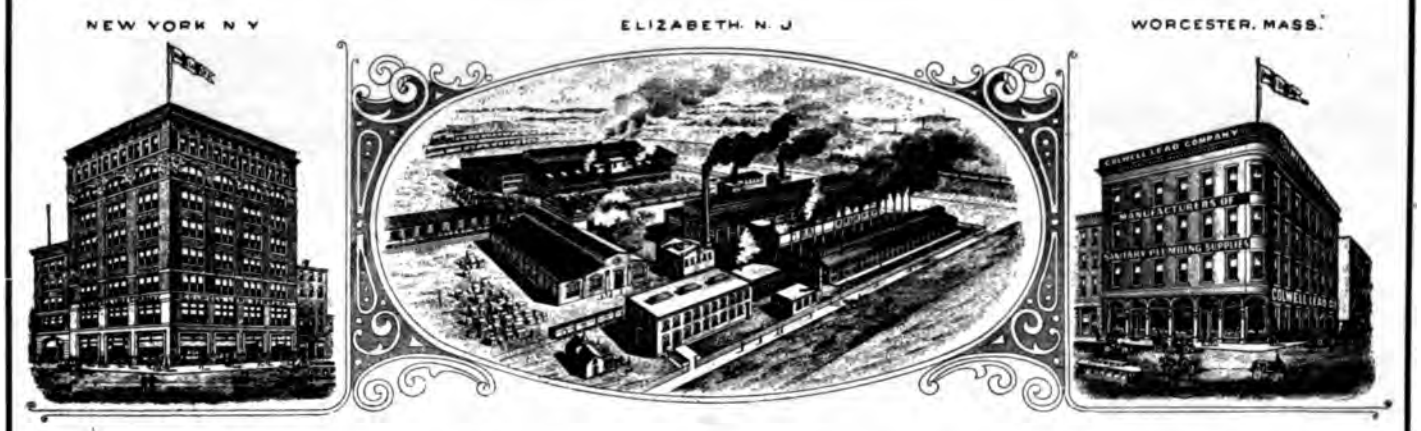
After luncheon a visit was made to the foundry where the Mills, Mercer & Meuls boilers are made. Here the party enjoyed seeing a modern foundry and machine shop equipment. Some time ago the company sustained a loss of its foundry building through fire, and from its ashes arose one of the best designed and equipped boiler making foundries in the country.

After the members of the party had been initiated in the different steps taken in the production of boilers adjournment was taken to the company's conference room, where W. B. Reed and W. Smith, of the company, expressed their gratification at having so many visitors. Then the meeting was opened for further discussion, and on the large table in the center of the room the company's data in the form of charts showing the performance of the apparatus and qualified to answer any question were unfolded and explained.

The party boarded trolley cars and returned to Springfield, where a banquet had been provided for the engineers and their guests. With R. D. Reed at the head of the table and A. W. Franklin, of Boston, at the foot, James W. Myrick taking care of the center, the party enjoyed themselves until a late hour, when they broke up with expressions of gratification to the company for its kind invitation to visit its plant and on having had the opportunity to gather so much useful information.

Early next morning the party journeyed by train to New Haven, then to the office of Prof. Lester Paige Breckenridge, in the

EQUIPMENT FOR TESTING INDIRECT RADIATORS AT H. B. SMITH CO. PLANT.



COLWELL LEAD COMPANY

Manufacturers and Jobbers of

Lead Goods and Plumbing Supplies

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BROOKLYN BRANCH
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Mason Laboratory of Yale University.

After being introduced to the party, Prof. Breckenridge explained that he had a deep sympathy for all connected with heating and ventilation from the fact that his father had been the inventor of the Breckenridge air valve and after leaving school he had first taken up active work in making the Breckenridge air valves at a piece price and had saved sufficient money from his piecework to defray the expenses of his course through Yale College. He also stated that from his connection with the manufacturer of heating apparatus in the plant of the H. B. Smith Co., Westfield, Mass., he felt a need of more exact information in reference to heating appliances, and offered the use of a laboratory to any manufacturer or engineer who desired to have a careful test made of any appliance.

He further explained that for a number of years he had been connected with the University of Illinois and had made exhaustive tests of different kinds of fuel. He pointed out that during no one year had there ever been 90,000,000 tons of hard coal mined in the United States, while in recent years there had been 500,000,000 tons of soft coal mined. This, he said, was an indication of the necessity of the use of more soft coal in the eastern centers in the future and the necessity of utilizing furnace constructions that would consume soft coal without smoke, which he said was a simple matter.

The party then went through the laboratories and saw the equipment, the invaluable collection of scientific apparatus in the possession of the laboratories for conducting tests. In one of the accompanying views on the right is shown a hot blast heater in the casing to be connected by a pipe with a fan which will draw air through the heater under whatever condition of test may be decided upon. Near the center are shown two boilers donated to the university by the H. B. Smith Co. for use in connection with its testing work, and on the extreme left the board on which are supported various registering devices used for temperature, pressure, etc.

After a hearty dinner at Heublein's restaurant there was a vote that the joint meeting of the Massachusetts and New York chapters in visting testing laboratories had been in every way a success, and congratulations were extended to James A. Donnelly, of the committee on tests.

New Members Elected to the American Society of Heating and Ventilating Engineers.

At a meeting of the American Society of Heating and Ventilating Engineers, held Dec. 18, the following were elected to take part in the proceedings of the association:

Jean S. Jenson, 431 S. Dearborn St., Chicago, Ill., member; Carl W. Johnson, 644 W. Washington Boulevard, Chicago, Ill., member; James Ambler Johnston, National Bank of Virginia building, Richmond, Va., member; Arthur A. Kitt, 500 Park Ave., New York, N. Y., member; H. W. MacKinnon, 4057 Forest Park Boulevard, St. Louis, Mo., member; Francis H. Morgan, 66 Munroe St., Lynn, Mass., member; Leon H. Prentice, 328 S. Sherman St., Chicago, Ill., member; William J. Price, 507 W. Jackson Boulevard, Chicago, Ill., member; John J. Raine, care G. S. Blodgett Co., Burlington, Vt., member; Gilbert Marshall Robinson, 74 Days Park, Buffalo, N. Y., member; Edwin A. Scott, 239 W. 39th St., New York, N. Y., member; Chester A. Slocum, 39 Cortlandt St., New York, N. Y., member; Douglas Sprague, 39 Cortlandt St., New York, N. Y., member; Alfred Porter Brown, 412 Dearborn Ave., Chicago, Ill., associate; P. J. Dougherty, 52 Dearborn St., Chicago, Ill., associate; John M. Frank, 154 Whiting St., Chicago, Ill., associate; E. Vernon Hill, M. D., City Hall, Chicago, Ill., associate; Henry G. Issertell, 527 W. 34th St., New York, N. Y., associate; Louis L. Narowetz, Jr., 223 W. Lake St., Chicago, Ill., associate; Mark L. T. Stevens, Department of Health, Seattle, Wash., associate; James A. Swan, 104 W. 42d St., New York, N. Y., associate; S. Alfred Witt, 187 N. Dearborn St., Chicago, Ill., associate; John F. Hanbury, 500 W. 173d St., New York, N. Y., Junior; Walter F. McKennett, 2 Stanley St., Woodhaven, L. I., N. Y., junior; F. Greatorex Purdy, 500 Park Ave., New York, N. Y., junior.

A Chinese proverb runs: "Think of your own faults the first part of the night (when you are awake) and of the faults of others the latter part of the night (when you are asleep)."

A Song of Christmas.

By JAMES WHITCOMB RILEY

CHANT me a rhyme of Christmas,
Sing me a jovial song,
And, though it is filled with laughter,
Let it be pure and strong.

Sing of the hearts brimmed over
With the story of the day,
Of the echo of childish voices
That will not die away.

Of the blare of the tasseled bugle,
And the timeless clatter and beat
Of the drum that throbs to muster
Squadrons of scampering feet.

But, oh, let your voice fall fainter
Till, blent with a minor tone,
You temper your song with the meauty
Of the pity Christ hath shown.

And sing one verse for the voiceless,
And yet, ere the song be done,
A verse for the ears that hear not,
And a verse for the sightless ones.

For, though it be time for singing
A merry Christmas glee,
Let a low, sweet voice of pathos
Run through the melody.

Meeting of the National Association of Brass Manufacturers

IN NEW YORK CITY

THE National Association of Brass Manufacturers held one of the most successful meetings in its career at the Hotel Astor on Wednesday, Dec. 11, 1912.

Among the important committees appointed was that of a standing list committee for the purpose of establishing proper and fair lists on new goods that may come out, consisting of W. H. Wasweyler, Jos. H. Glauber, H. M. Hoelscher, J. W. Sharpe, Jr., A. S. Hills and E. F. Niedecken.

It was formally and finally adopted that 13 ounces would be the proper weight for a half-inch compression iron pipe bibb, and notice was directed to be sent to this effect to all jobbers in the United States and Canada.

It was ordered that a practical universal code be gotten up as applying to brass goods and those shown in the official catalogue.

The meeting went on record as favoring a standard diameter for all kinds of bibb flanges.

A resolution favoring a one-cent letter postage was unanimously passed.

Several new members were accepted and the following officers were elected for the ensuing year:

President and chairman of the board of trustees—Theodore Ahrens.

Trustees—Theo. Ahrens, E. F. Niedecken, C. C. Hale, Allen Smith, Jr., H. M. Hoelscher, A. S. Hills and A. Mueller.

Delegates to the national committee—J. W. Sharpe, Jr., and D. H. Roberts.

A pleasant incident of the meeting was the presentation of a beautiful diamond horseshoe pin to President Ahrens by Commissioner Webster on behalf of the National Association of Brass Manufacturers. Commissioner Webster addressed President Ahrens and the assemblage as follows:

"Mr. President and Gentlemen: There comes to the life of every man a time of joy, and there likewise comes to an organization such as is assembled here to-day a time of joy and happiness, and I believe there could be a no more propitious time for the manifesting of its joyful tidings and good cheer than at its annual meeting, when the sun goes down on the old and rises above the horizon of the new administration; and in this connection I think that this organization that is assembled here to-day has much to be joyful about and thankful for, and among the things that they have a reason to be thankful for is the capable and efficient corps of officers that have administered its affairs during the year now about to close—all men busy in their everyday walks of life, fully taken up with affairs of their own—kings in their own domain of business, as it were, still with all, when called upon, they have cheerfully and pleasantly given sufficient of their time to properly administer the affairs of this organization and look after the welfare of its members.

"Two years ago, at about this time, in this city and in this hotel, this organization concluded to depart from its time-honored custom of rotating in office, which was done in consequence of the fact that a number of our members had been attacked in litigation that was unreasonable, unfair and, I believe, unjust—at any event, the association felt that in no more befitting manner could it show its fealty, its devotion, its loyalty and abiding faith in our members thus attacked than by returning them to their respective offices, which we did and in which I believe the association acted not only fairly and wisely, but justly.

"Prominent among those of our members involved in this unfortunate litigation was our president, Theodore Ahrens, who has withstood the attacks, scourges and trials of this litigation in the past two years with fortitude and courage, and with all his manifold duties and great business responsibilities he has seen fit to make the necessary sacrifices that have enabled him to be with us—to give us the benefit of his advice, the assistance of his counsel, the advantage of his long and varied business career and the very best within him, which has been deeply appreciated by each and every member of this organization; and as a further and living evidence not only of our deep appreciation of your efforts in our behalf, Mr. Ahrens, but of our undying confidence in you, I have been asked to present to you a slight remembrance which in its shape is emblematic of good luck and which we trust will be forever your future lot in life, and may the bright rays that it sheds act as a beacon light on your pathway to paradise, to freedom, to good health, to your peace, your happiness and prosperity; and as the years roll by and we journey down the lane of life, not unlikely some of us who are assembled with you here to-day will have passed on to the silent city of the dead; but as you gaze upon this little gift we know that you will think of them, that you will think of us and that you will remember the Brass Association, of which you have been not only a pioneer member but a true, loyal, devoted friend; and now, Mr. Ahrens, in presenting to you this little tribute we ask that you accept it in the same spirit of good fellowship, of respect, of esteem, of devotion and friendship in which your friends here ask me to present it to you to-day."

The presentation to President Ahrens came as a complete surprise, and in rising to gratefully acknowledge same the tremor in his voice indicated that he was visibly affected.

The next meeting of the association will be held in St. Louis, Mo., March 18 and 19, 1913.

Conanton, Pa., Plumbers Up in Arms.

VIOLATIONS of the law licensing plumbers are declared to be so flagrant at Conanton, Pa., that journeymen plumbers and master plumbers who are living up to the law contemplate action against the city to compel enforcement of the law.

It is asserted by journeymen plumbers that the plumbing inspector permits unlicensed plumbers to ply their craft on one hand and makes others obey the law.

Discrimination is charged by William Kerrigan, business agent of the Plumbers' Union, and some of the master plumbers and a conference of the union and masters will be held soon.

In one place it was stated two men are doing plumbing who are not licensel. The plumbing inspector has been notified, it is claimed, but has permitted them to go ahead and work.

Under a city ordinance master plumbers must take an examination and pay a fee of $5. Journeymen also have to be examined and it costs them $1. If they are not qualified they can not do any work. Every year they must take out new licenses. The masters have to pay $1 and the journeymen 25 cents for the license.

There is a growing sentiment in favor of refusing to take out licenses, which have to be taken out annually between Dec. 1 and Dec. 31. Others want to go into court to prosecute the plumbing inspector.

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Regular and Special

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KOKOMO, IND.

If you were a fly-by-night plumber, this wouldn't interest you : : : :

But you surely think well enough of your customers and your prospects for future business to recommend the best fixtures they can afford

Don't Forget the Best Kitchen and Laundry Plumbing Fixtures Are Made From

Solid Porcelain

You say if you thought they could afford them, you would recommend it? Yes, but anybody can afford to buy goods which will give better and longer service. Besides, "Ideal" Solid Porcelain Washtubs and Kitchen Sinks cost very little more than the cheaper substitutes. Ask your Jobber for prices if you don't believe it, and remember

The Trenton Potteries Company

"Ideal" Solid Porcelain

receive a firing or baking, so long and hard, that it is superior to the average porcelain you'll run across.

That feature in itself is what makes our Porcelain so hard and fine. It's the one big distinction between good and bad Porcelain.

See Your Jobber For Any Price

The Trenton Potteries Company
Trenton, New Jersey, U. S. A.

(*See page 23 for our other advertisement.*)

MERCHANT PLUMBER AND FITTER
DEVOTED TO
PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

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NEW YORK, DECEMBER 25, 1912.

The Merchant Plumber and Fitter wishes the Craft a Happy New Year.

Happy New Year.

Being interpreted, means: "Thank God for a new beginning!" It's the joy of life that there are beginnings—no end of beginnings. There's a yearly beginning, a monthly, weekly, daily, hourly beginning, and the very thought of them, with all their possibilities, is good and wholesome and helpful.

The personal appreciation of beginnings marks the difference between an optimist and a pessimist, and this potent fact is a good one to start a new year with. Emerson says success is keeping the faith, so while we may not have to begin again ourselves it may be our lot to have to begin again and again to have faith in somebody else.

It may be our lot to preserve the faith in spite of the failures; even when our ideals have all toppled over and when the very world has come thundering down around our ears; when there isn't a blessed thing left but to begin again—not a thing left but a beginning.

Our Third Volume.

With this issue of the MERCHANT PLUMBER AND FITTER we enter our third volume. With heartfelt thanks to our many friends for their helpful and valuable co-operation, we again take up our burden in the hope that our efforts during the coming year will result happily and satisfactorily to our great many readers. If we can earn their commendation so generally as we have during the past year, our gratification will be complete. In all things we shall strive to be accurate, and hope to bring to our labors that degree of experience, painstaking care, and thoroughness as will win for us the lasting favor and esteem of a critical craft. We will not reach perfection, but our aim will be high.

The Night Before Christmas.

So many millions in every land have read or heard the poem entitled "The Night Before Christmas" that it seems to belong to all nations and to have been a part of the Christmas traditions from all time, but the poem is not very old and is American and was written in New York.

It may interest many of our readers to know that it was written by Prof. Clement C. Moore in 1822, and written for his children, not for publication or for the world. It was written at Chelsea House, the present site of the General Theological Seminary.

Chelsea House was the home of Bishop Benjamin Moore, second bishop of New York, and there Clement C. Moore was born in 1781. Chelsea was then a suburban village in the midst of farm land.

After Clement inherited the land he dedicated a square block of it to the theological seminary in which he, a Columbia alumnus, was professor of Hebrew. He enjoyed childish nonsense, and wrote many rhymes to please his children. Most of the rhymes were collected and published in a book in 1844. Mr. Moore had a habit of gathering the children in his study, and when they discovered that he could put nonsense into rhyme he had no peace until he produced a new rhyme. He ran the gamut from grave to gay, and managed to convey moral lessons in the sugar-coated way by putting his ideas into simple words.

On one occasion, when the question that comes to all children raised a discussion about Santa Claus, the Kris Kringle legend was written in an off-hand manner.

A few days after Christmas a daughter of Rev. Dr. David Butler, of St. Paul's, Troy, visited Mr. Moore's house and heard the children recite the poem. She secured a copy, and just before Christmas, 1823, she sent it to the editor of the Troy *Sentinel*, who published it with a quaint cut of St. Nicholas.

Paper after paper copied the poem. Magazines, school book publishers and others spread it before millions in America and Europe, and Mr. Moore found himself famous, not as the learned author of solid books on Oriental languages, but as the author of a nursery jingle that went straight to the hearts of children the world over.

Portraits of Mr. Moore and his father, the bishop, hang in the refectory at the theological seminary, and the students decorate them with holly every Christmas Eve, but how many of those who know the poem could tell that it was written by Clement C. Moore, born 1781, died 1863, and buried in a forgotten grave in Trinity Cemetery, Harlem?

An Efficient Public Servant.

It is with a great deal of pleasure that we present a letter received by us from Hon. Matthew J. Kennedy, assistant superintendent of buildings, Brooklyn, N. Y. Mr. Kennedy is the originator of many advantageous practises in the management of his office which have won the approval of the legitimate master plumbers of Kings County. Special attention was given by this efficient and painstaking official some three years ago, and since, to the shocking conditions which obtained at that time in regard to alleged plumbers operating in his section without licenses. Due to Mr. Kennedy's corrective measures fines were placed against those operating in this illegal manner, and several jail sentences, too, were meted out to the malefactors.

The practise of sub-letting licenses, too, was one which early earned the enmity of Mr. Kennedy, and the custom was broken up almost entirely soon after his induction into office.

During the three years of Mr. Kennedy's term of office the citizens of Brooklyn, N. Y., have had their interests better sub-

served than for many years past, so far as the infractions of the rules and regulations of the department are concerned. Short work has been made of those who were unjustly engaged in the business of plumbing, and the master plumbers of that city have lost no time in acknowledging the good work which has emanated from Mr. Kennedy's office.

BROOKLYN, N. Y., Dec. 23, 1912.

MERCHANT PLUMBER AND FITTER.

GENTLEMEN:—It is with real pleasure that I address you these few lines of commendation and well wishing at this season of the year. You have made a warm spot for yourselves in the hearts of the craft, and the clean and thorough manner in which you have applied yourselves to the various tasks as they come to hand deserves the respect and admiration of all those interested in the production of an up-to-date trade paper, which I consider yours to be in every respect.

The giant strides made by you in so short a time prove the experience and judgment of your staff, the capability of which is easily recognized in the many sterling articles and reports of trade happenings which has been produced during 1912.

There is room aplenty for good trade papers, and your success in this field is being hoped for and watched by your many friends.

Extending to you the compliments of the season, with kindest personal regards, I remain, Sincerely yours. M. J. KENNEDY.

LOUIS MAIER, the Proforio Diaz of the Newark, N. J., Master Plumbers' Association, always carries his winning smile with him wherever he may be met. Whether in Galveston, Tex.; Salt Lake City, Utah, or Broadway and 29th St., Manhattan, in search of his friend, T. Howell Johnson, of the United States Radiator Corp., his charm of manner and striking personality is always apparent. "Mother," as he is known to his familiars, is always appointed a special committee to guard the precious delegates of the New Jersey State delegation to national meetings. During his many years chaperonage no accidents of anything but a slight nature have been recorded. When a bunch of frisky colts cut loose as students of geography it is a pretty difficult matter to keep watch over them. Generally speaking no better man in the entire association could be selected to look after the interests, personal and collective, of a large delegation of tourists. This fact has long been recognized, and it is doubtful if "Lou" will be able for a long time to rid himself of the honor of looking after his brood.

LARRY FRANCOIS BANNON, the originator of the song, "Be in the Room in Five Minutes," has taken to himself a wife. Blessings be upon the heads of the happy twain. It happened—and we exceedingly regret the previous engagement which precluded our accepting the cordial invitation—Thanksgiving eve, in Kingston, N. Y. "Larry," or the Baron of Rosendale, as he is known throughout the purlieus of his section, has been the choicest bait that the bachelorhood market has afforded. The belles of the community have dangled fortunes galore, but our famous friend successfully held aloof from the charms of beautiful femininity. Now that the honeymoon is over "Larry" and his bride have the suite de luxe in the Eagle House, where they will remain until their new home is ready for occupancy. In conversation with Mr. Bannon we learn that the particulars of his happy marriage to Miss Catherine Connell will be furnished at the Albany banquet on Jan. 23, to which the charming bride will accompany her lord and master. Everybody's rooting for all kinds of luck, Larry, and that, of course, includes us.

R. O. KRIEBEL, who has been long and favorably known as an attache of the United States Heater Co., with whom he has been associated for 12 years, many of which as manager of the Philadelphia, Pa., branch, will sever his connection Dec. 31, 1912. Mr. Kriebel has been secretary and treasurer of the Vapor Vacuum Heating Co., and upon Jan. 1 will actively become interested in the latter company, with offices in the Drexel building, Philadelphia, Pa. To a high-grade efficiency Mr. Kriebel adds a winning personality, which has made him a striking and popular figure in the trade. Our sincerest congratulations are extended him in his new position.

G. W. BUSCH, who formerly represented the Glauber Brass Mfg. Co. in Greater New York, has cast his lot with the Monarch Brass Co., of Cleveland, and will cover the New England territory for that firm. We wish him success in his new venture.

S. E. MILLMAN, formerly of the American Radiator Co., is now associated with Lehnert & Co., of New York, manufacturers of plumbers brass goods. Mr. Millman will call on trade in Greater New York.

THE only Democratic alderman elected in the municipal election held at Springfield, Mass., recently was George H. McLean, who conducts a large plumbing establishment in that city. He ran in a ward that was normally Republican by a large majority, but his popularity enabled him to defeat his opponent.

OFFICIAL NOTICE.

National Association of Master Plumbers of the United States, Inc.

Office of PRESIDENT FRANK J. FEE,
1482 Broadway.
New York, Dec. 5, 1912.

According to the provisions of Article XXIII. of our National By-Laws, the basis of our membership for the last half of the fiscal term (the last half of this fiscal term being from Jan. 1 to June 30, 1913) is the names now published in the July Red Book and December Supplement, with the corrections that may be received not later than Dec. 25. We go to press with the January Red Book promptly on Dec. 26, 1913.

Kindly send your corrections—and, may I hope the names of new members?—to your State secretary so that he may have time to forward them to our National secretary by the 25th.

If a member is in arrears with his dues go after him. Don't cut him off. Tell him what I propose to do this year, with his help.

An organization is judged by the stability and loyalty of its members. A constantly increasing membership, as we experienced when we were receiving full trade protection, is necessary.

A strong, active and loyal association means the restoration of trade benefits and legitimate protection to your business.

We will judge by the returns whether your association desires better business conditions.

I mean business. Will you help me? If you do I'll deliver the goods.

Fraternally yours,
FRANK J. FEE, *President.*

Special Committee on Trust Fund.

NATIONAL PRESIDENT FEE has appointed the following members to draft the laws to govern the "Trust Fund," as submitted by Bro. Eynon at the last national convention: A. C. Eynon, chairman, Canton, O.; D. H. Roberts, Cleveland, O.: James B. Cassedy, Cambridge, Mass.; Frank B. Lasette, New York, N. Y., and Jeremiah Sheehan, St. Louis, Mo.

This committee is an excellent selection, and from the past records of each of these members the National Association will be in shape at the coming convention in Philadelphia to make this the beginning of the greatest progressive period in the history of the National Association of Master Plumbers.

"If we work upon marble it will perish. If we work upon brass time will efface it. If we rear temples they will crumble into dust. But if we work upon immortal souls, if we imbue them with principles, with the just fear of God and love of fellow men, we engrave on those tablets something which will brighten all eternity."—*Daniel Webster.*

T. ALFRED HILL

T. A. HILL, formerly president of the National Association of Master Plumbers, a member of the National Board of Directors for several terms, president of the Greater New York association and president of the New York City Master Plumbers' Association, Manhattan branch, for three terms, died at St. Luke's Hospital at 4 A. M., Dec. 27, 1912.

The funeral services were held Sunday, Dec. 29, at the North Presbyterian Church, on 155th St., between Broadway and Amsterdam Ave., of which Mr. Hill was a member, Dr. Mackay officiating.

The pallbearers were composed of the trustees and officers of the Manhattan association, as follows: Charles Murphy, John Renehan, Jere L. Murphy, Isaac J. Brown, Barth F. Donohoe, T. S. Cochrane, T. J. Cummins, Harry Hemlin, Thomas P. McLoughlin, Philip Eich and Jacob Jarcho.

Among the various orders and societies of which Mr. Hill was a member represented at the funeral were the National Association of Master Plumbers, the Manhattan association, Crescent Lodge No. 402, F. and A. M., B. P. O. Elks, New York Athletic Club, Irish-American Athletic Club, Spanish War Veterans, Company B, 71st Regiment, N. G. N. Y., of which Mr. Hill formerly held a lieutenant's commission, and legions of friends that knew and respected the deceased.

The remains were taken from the church on Monday, Dec. 30, to the Grand Central Depot and placed in a private car attached to the special train which had been chartered for the occasion and taken to Mount Hope Cemetery, in Westchester County, where the interment took place in the family plot.

In March, 1910, deceased was operated upon at St. Luke's Hospital, New York City, for an aggravated case of appendicitis. His recovery at the time was doubtful; but his courage, coupled with a splendid physique, aided him through the tortuous situation, and after a six weeks' stay he was discharged as cured. Unfortunately a year later he suffered a recurrence of the trouble, and he entered the hospital for corrective treatment. For a while his health seemed good despite the fact that he lost considerable weight. He attended to business, however, and his association duties as of yore, but his friends were not altogether pleased with his appearance. A fortnight ago he was obliged to again enter the hospital for treatment of the old trouble.

His last public appearance of note was upon the evening of Nov. 19, 1912, when he acted as auctioneer of the boxes for the Manhattan ball recently held. Mr. Hill was never in better form than upon the evening in question. His humorous and successful handling of the auction block resulted in his securing some $400 in excess of the previous year's figures.

At the past presidents' banquet which was celebrated after the auction sale of the boxes above referred to, in his address Mr. Hill eloquently pleaded for a better recognition and observance of the spirit of brotherly love and charitable consideration to the down-and-out member of the association. He regretted, he feelingly said, that we as an association were somewhat shy as regards a proper benevolence. He urged the members to think seriously of the theme. His noble thoughts earned an immediate and sympathetic response from many of the gentlemen present, who agreed with Mr. Hill that some definite means and measures should be adopted for better looking after the interests of the unfortunate associates. Mr. Hill further remarked that the members should visit the sick and infirm, rather than wait until the grim reaper gathered them in, and then show a belated sympathy by proffering a $20 wreath of flowers. Little did we think, when looking upon this brilliant young gentleman, whose heart prompted such glorious thoughts, that we would soon be called upon to pay our respects at his bier.

Upon the eve of his departure to the great beyond the expression of such noble sentiments bespoke his nobility and great goodness of heart and mind. For all memory "Al" Hill will be regarded by those whose good fortune it was to know him as one of nature's noblemen. To know him was to love him. His friends are legion. His was an upright, just and honest manhood. He embraced many excellent qualities of mind and person. His talents were manifest whenever occasion required intelligent and able conclusion. His integrity, probity, mentality and love of mankind were distinguishable features and characteristics of this clean-living and God-fearing man. His entire life offers itself as an example that might well be emulated by those who wish to do as near right as human frailty will permit.

To his widow and four children and the members of his family the heartfelt sympathy of all engaged in the trade throughout the entire country is offered at this sad bereavement.

"The soul, of origin divine,
God's glorious image, freed from clay,
In heaven's eternal sphere shall shine
A star of day.
"The sun is but a spark of fire,
A transient meteor in the sky;
The soul, immortal as its sire,
Shall never die."

The Late T. Alfred Hill of New York.

Will Remove to More Commodious Quarter.

OWING to its rapidly increasing business, the Hudson Boiler Mfg. Co. will move its Philadelphia branch from the Builders' Exchange to more commodious quarters in the Bulletin building, n. e. corner City Hall Square, on Jan. 1.

The Jobber Who Tells You

that he can sell you lavatories like these made by someone else at a better price is being fooled himself.

Solid Porcelain Lavatories

are practically made alike. If there is any considerable difference in price it is because the firing is **being shirked.** The result may look just the same—for a short time. Then it shows because a **low firing or baking does not give the hardness found in**

Plate 162 complete

The Trenton Potteries Company Ware

We make our solid porcelain conscientiously and honestly; believe it to be the only Porcelain which will give excellent service over a long period of time.

We back our ware with our established trade-mark which appears on every piece we manufacture.

Vitreous China (made at four of our plants) and Solid Porcelain (made at two exclusively) are acknowledged by experts to be the most sanitary materials.

Plate 175 complete

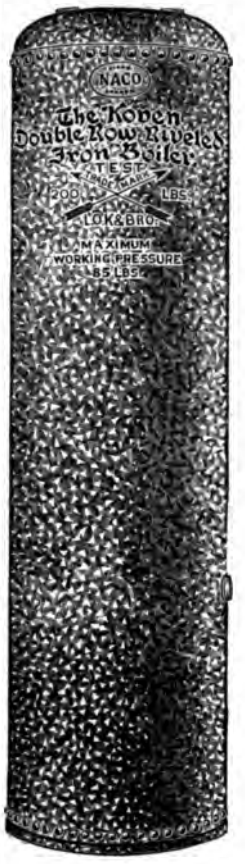
Your Jobber Can Give You Prices.

Just convince yourself how little more it will cost to use such sanitary materials, **made by a reliable company.** Ask about Plates 162 and 175.

The Trenton Potteries Company

Trenton, New Jersey, U. S. A.

(*See page 19 for our other advertisement.*)



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To Architects and Plumbers Everywhere

The *Jobbers* of Plumbing Goods of the United States desired a *Standard* of Weights and Capacities of "Galvanized Range Boilers." The National Committee of the Confederated Supply Association thereupon appointed a committee on Standards. This committee compiled a standard for Range Boilers. The Standard stipulates that all Galvanized Range Boilers must be stamped with their actual capacity, and the materials used in the boilers must be of a specified thickness. On all such boilers the "Naco" label may be used.

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MERCHANT PLUMBER AND FITTER
DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

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NEW YORK, JANUARY 10, 1913.

What Constitutes a Plumber.

The foregoing title was suggested by reading in the public prints an expression as follows: "After all, plumbers are not civil or sanitary engineers."

In the construction of a building, whether it be a home, a large hotel, an apartment, a tenement, a business building or a factory, the most important feature in the building is its plumbing. When you stop to consider that in the large cities hundreds of thousands of people spend a large part of their lifetime in these various named buildings the importance of sanitation can be readily realized.

Under our present day system of education we find that he who chooses his future in one of the professions, prepares himself first by education, general and spacific, and then sallies forth into life to put to use the knowledge so gained. It has been very aptly said that the young man who has just passed his examination for the bar has more knowledge of the law than he will ever have afterwards.

Sanitary plumbing is a science and it has been wisely decreed that those entering into it shall give evidence of their ability. A man who chooses for his life work the profession of a plumber, if he is to be successful, must of necessity prepare himself by years of active work and study. We have in this country several institutions of technical training wherein the students not only study theory but put into practise that theory before they are permitted to graduate or place after their names "M. E.," etc. Is not then the up-to-date plumber really in the same relative position? Is not his store of knowledge both theoretical and practical, as great as the above named young man, and is it not time for the plumber to place himself and demand for himself the recognition that the practise of his art entitles him to? and if he carries out faithfully the ideals of his profession he well may take his place beside the doctor, the surgeon, the lawyer, the civil engineer, the mechanical engineer, and it lies largely with himself to bring home to those by whom he is called recognition of his standing in the community.

Improved Street Cleaning Facilities

The problem of the removal of street refuse is likely to be satisfactorily solved in England if the machine demonstrated before representatives of public bodies who met at Southport comes into general use.

The machine, which is a sure snapper up of germs, has a chassis with a four-cylinder, 30-horsepower patrol motor, a cylindrical roller with a four-inch diameter brush fixed to the chassis, and a tender at the rear for the receptiion of refuse, with a capacity of forty cubic feet. The width cleared by the brush is six feet, and it sucks up every article of dust or damp dirt which may be lying in its track. It compresses the refuse in boxes, which can easily be emptied at a depot, its cleaning capacity being 180,000 square feet an hour.

This machine is already in use in Milan, Rome and Hamburg, and as it is such a great improvement over the horse-drawn road cleaner, with its slowly revolving brush at present in use, its general adoption by municipalities throughout England is anticipated at an early date.

The eyes of sanitary engineers of the United States having in charge the collection of refuse are being directed to the success of the machine in question, and if its superiority is demonstrated it is safe to say that these machines, or similar ones, will soon be in operation in this country.

Plumber vs. the Lawyer.

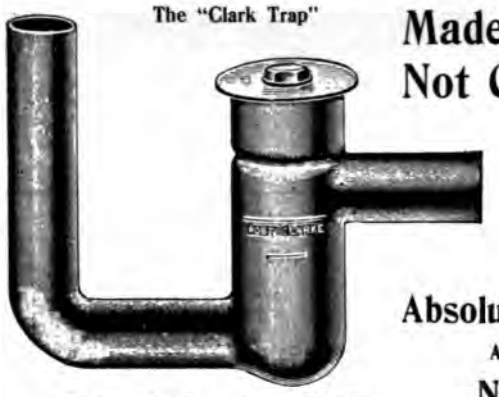
Recently in the appointing of a lawyer to examine into the methods of a plumbers' examining board, a certain distinguished citizen was heard to remark rather deprecatingly of the plumber as a laborer. Unquestionably the master plumber, before reaching the height of his profession, must have labored and prodigiously to fathom the limitless problems that enter into his work. A rare mechanical bent, many years of close application, both in theory and practise, and robust physical manhood, are the usual requirements before the cub can be designated a master. The character of the work, in our judgment, is more worthy in every respect than the doings of the lawyer, whose place in society can well be vacated, and the health of the community, and its welfare, still proceed undisturbed. If the plumber were taken from our midst, pestilence and destruction would surely follow. The present terrible conditions obtaining at this writing in the Balkan States, where cholera and other dread diseases are rampant, could well be expected to attack the comfort and happiness of our citizens. Indeed, the plumber is a laborer, and a most worthy one. His works are for the betterment of mankind. Cleanliness and morality follow his pursuits. His handiwork makes for peace and comfort. Without him, despite the finest and most beautiful of natural conditions, disease would attack. Look at the marvelously salubrious climate of the Hawaiian Islands. Paradise itself, so 'tis said. And there, on every hand, stalks the grim reaper gathering in the natives in vast quantities. Domestic engineering as practised by the wideawake American plumber has not been developed here, or the mortality rates would fast become lowered. The plumber has never taken exception to the word "laborer" in its highest and most appropriate sense. The lawyer's sneering remarks to those unacquainted with the excellent service rendered by the plumber might occasion a laugh with the unthinking, but, with the well-informed, derision will only meet his frivolous chatter.

In the ranks of the plumbers, all laborers, if you will, we find men prominent in official positions throughout the land. Considering the small number engaged in our profession, we wager that the percentage is greater with us than with the lawyers. Legislative halls have heard the voices of artisans of our craft who, when chosen to represent their communities either in national or State halls, have done so with honor and distinction to themselves and their calling.

As living examples of distinguished gentlemen occupying prominent and noteworthy positions of trust, we may point and with honor to Hon. William McCoach, treasurer of the National Association of Master Plumbers, and internal revenue collector of the first eight counties of Pennsylvania; Hon. John Trainor, Baltimore, Md., whose experience and advice has been sought times out of number by legislators in Maryland, and who has been honored frequently with offices of appointment by the Governor of

SAND HOLES? NEVER!!

The "Clark Trap"



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It's the Reliable

Clarke Trap

Absolutely Non-Syphoning

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THE COY-DEL SEAT

Every seat is made from 1½ inch Quartered Oak

Two Bolted Steel Rods encircle the entire seat and hold it like a vise.

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PERMANENT—GUARANTEED

Sanitary Washtrays and Urinal Stalls

Cleanest and Best

Recommended by the Leading Architects

Used in best public schools, residences and public buildings, where correct sanitation is required.

WRITE US FOR PRICES

Phoenix Soapstone Company

116 Nassau Street
New York City

"Learnin'!" The usually taciturn John almost choked on the word. "Learnin'! I've learned to rush the can twice an hour and to mark time on the corner while that beef is tanking up at some boffay. He bosses me around as if I were a Dago—some day I'll punch him one—I didn't go to the sanitorium for nothing."

"Ye'll do nothin' of the kind. It's a job that ye have, and it's a job that ye will stick to," broke in Mrs. Muldoon, the investment of her $90 a too recent grief and her feet still too chafed from the many miles of travel to sympathize with her eldest.

The first six months of John Muldoon's plumbing apprenticeship were spent as helper to "Hulky" Schmitz, in whose wake he had traveled that morning when his mother's heart had nearly burst with joy. It being a season of dullness in new work, they were kept at repairing in the Astor St. district, with an occasional excursion as

AN EQUALLY SWINGING LEFT THAT SENT HIM AGAINST THE GAS RANGE.

far east as the Drive. Away from the shop and his fellow workmen "Hulky" Schmitz was "Mister" Schmitz, whose polished manners and immaculate clothing made him a favorite with both mistress and maid in the habitats of the rich.

Young Muldoon, quick to see his superior's good points, was not slow to follow his example in matters of dress, an imitation which did not flatter Schmitz, but on the contrary proved a continual source of irritation to him. To revenge himself he delighted in giving Muldoon some task in the kitchen or laundry, and then railing at him for incompetence and awkwardness in the presence of the assembled domestics. The result was laughter on the part of the spectators and murder in the heart of Muldoon, who times without number came near turning a ladle of melted lead over the satirical Schmitz, being only restrained from so doing by the memory of Mrs. Muldoon. But other influences were getting ready to work on the young helper and quicken him into life.

II.

That Lena Klein was nursemaid at the Rexhows, who lived on the Drive, Muldoon never knew, until one September day some eight months after being thrust into his career. In fact, until that particular day he never had seen Lena nor had heard of the Rexhows—his life had not, till then, run in juxtaposition with theirs.

Lena was walking northward that eventful day, holding by the hand a little scion of the Rexhows, who insisted on walking the sea wall. Schmitz, with Muldoon as the beast of burden was holding a southerly course. Schmitz saluted the maid in that easy, yet deferent, manner which in no small part contributed to his popularity, then called back to Muldoon:

"Hurry up there, helper, and don't be all day about it either!"

Muldoon was not sure whether the smile Lena gave him and not to Schmitz was one of derision or pity, but then and there he vowed that come what might he would some day visit on the arrogant plumber a swift and final punishment, and that, too, in the presence of the very nursemaid whose neat-waisted figure he turned again to view, just in time to intercept her backward glance.

It was several weeks after the first chance meeting that John again saw Lena and learned her name and place of residence. It was in the kitchen of the Rexhow residence where he was working and Schmitz, as usual, simply superintending.

While Lena, on entering the kitchen, spoke a general good morning, Muldoon intuitively felt that it was intended rather for him than for the pompous Schmitz, who was engaged in an animated conversation with the cook.

Lena's visit was but for a brief moment, but the smile she gave in passing out was directed at Muldoon, and at him alone.

With that smile of Lena's came the breaking of a new day in the life of John Muldoon.

Commencing with the evening of that day Mrs. Muldoon saw recurrent, every 24 hours, the spectacle of her John's experimentation with the finer phases of plumbing work, such as were denied him by the jealous Schmitz. The rest of the family had to bulk itself in the hitherto unused parlor while the kitchen was noisy with the roar of a gasoline furnace and noisome with its odor. There was also imminent danger there of being scalded by molten lead as the son of the house wiped together short pieces of lead pipe, cut them apart, and then wiped them together again. The family library hitherto somewhat negligible as to quantity, was increased rapidly by successive volumes on "Sanitary Plumbing," "How to Become a Plumber," etc., etc.

His Sundays and holidays the ambitious helper spent in climbing over new buildings, noting the construction of stack work, the run of both cold and hot water supply pipes and the general arrangement of sewer pipe. Nor did he fail to note well the assembling of fixtures, nor to watch Schmitz when at long intervals that gentleman deigned to put his hand to a task.

At the shop he made frequent petitions to be put on new construction work, a boon that was granted him a couple of times, only to be cut short because Schmitz insisted that he be allowed his regular helper.

The Fall was passing rapidly to John, who, however busy as he was, did not fail to spend some of his time on the Drive in the hope of seeing Lena. Nor was he always disappointed, between times getting from her a smile and a rather conventional greeting, both of which he treasured in memory day and night till another similar blessing was vouchsafed him.

On the day before Thanksgiving Schmitz and Muldoon were alone in the Rexhow kitchen working on a grease trap still partly filled with sediment from the sink. The swing-door opened and Lena came in. Schmitz had been lying on the floor to get a view of the lead waste which connected the sink with trap, but straightened into a sitting position immediately on seeing Lena.

"Get under here, kid!" he called out to Muldoon. "Get under her and disconnect that waste——"

Muldoon stooped and adjusted a Stillson wrench to the hexagon nut—but this did not suit the plumber.

"Get down on your knees so you can get a good grip on it!" he commanded.

Muldoon started the nut and began to turn it.

"Get down, I say!" cried the plumber.

"The nut is turning. Can't you see it?"

"Don't you talk back to me, you whipper-snapper! Afraid to smut your face in the presence of ladies, I suppose. I'll smut it for you——"

And Schmidt rubbed the black on his canvas glove against Muldoon's face.

As Muldoon jumped to his feet and saw the piquant face of Lena with fear on it—fear for him—the lessons of Prof. McCarthy came back to his memory with such force that Mother Muldoon and her injunctions were entirely forgotten. As Schmitz dodged from Muldoon's swinging right he was caught by an equally swinging left that sent him against the gas range with a crash.

John had but the fraction of a moment for a breathing spell, but that was long enough for him to see Lena carefully bolting the kitchen doors, and by that token he turned with renewed determination to finish Schmitz.

The next few minutes were intense ones in the Rexhow kitchen. Schmitz was no coward and had an advantage in his great

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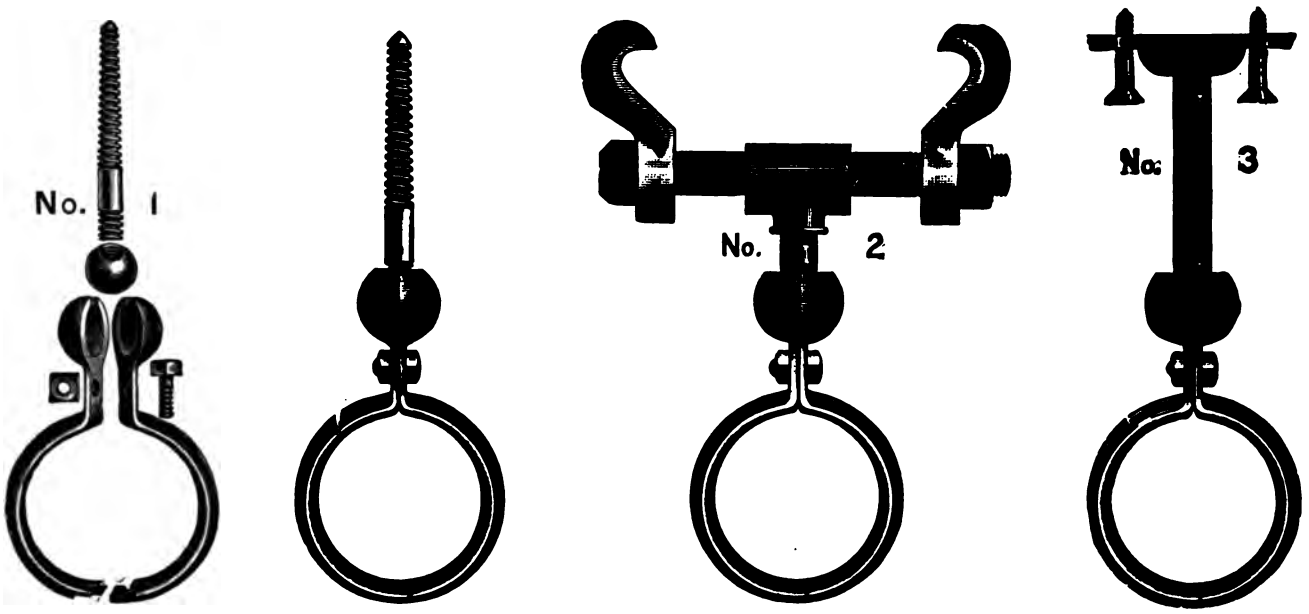

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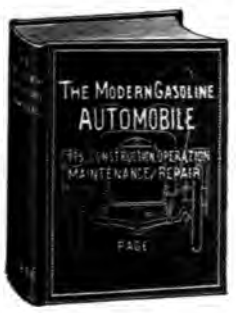

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Manhattan Branch Elect Officers.

AT the annual meeting of the Manhattan branch of the Association of Master Plumbers of New York City the following officers were elected for the ensuing year:

President, John J. Hannegan; vice-president, David Deigan; treasurer, T. J. Cummins; secretary, Harry Hemlin; financial secretary, T. P. McLoughlin; sergeant-at-arms, Philip Eich; marshal, J. Jarcho; trustees, Charles Murphy, John Renehan, J. L. Murphy and Isaac J. Brown.

Statistics for 1912 Greater New York Building Operations.

THE cost of dwellings in 1912 decreased $1,200,000 as compared with the previous year. The cost of public buildings last year amounted to over $3,500,000, or about $1,500,000 in excess of 1911. Factory buildings in 1912 exceeded the cost of 1911 by about $800,000 and a substantial increase is also shown in the cost of schools, from $129,000 in 1911 to $919,000 in 1912.

Plans filed and acted upon for new buildings in Brooklyn during 1912 were:

Classification.	No. Bldgs.	Cost.
One-family dwellings, $50,000 or over	1	$50,000
One-family dwellings, between $20,000 and $50,000	7	205,000
One-family dwellings, less than $20,000	967	3,730,600
Two-family dwellings, $20,000 or over	...	.....
Two-family dwellings, less than $20,000	749	3,186,675
Tenements, $20,000 or over	346	10,670,500
Tenements, less than $20,000	342	3,217,000
Stores, over $30,000	1	40,000
Stores, between $15,000 and $30,000	1	20,000
Stores, less than $15,000	31	105,100
Stores and two families	232	1,298,950
Office buildings	8	123,400
Factories and workshops	76	1,863,757
Schoolhouses	10	1,568,000
Churches and Sunday schools	12	401,500
Public buildings (municipal)	25	1,607,500
Public buildings (places of amusement)	47	1,924,350
Stables, garages, carriage houses	165	426,960
Warehouses and loft buildings	6	257,000
Sundries—railroad stations, storage, platforms, etc	253	736,435
Frame—		
One-family dwellings	1,046	3,264,190
Two-family dwellings	221	853,400
Tenements	75	478,900
Stores and two families	13	48,700
Factories and workshops	10	60,925
Other frame structures	461	333,535
Total	5,105	$36,472,377

The record for the entire year in Queens was:

Classification.	No. Bldgs.	Cost.
Frame dwellings	2,691	$7,800,089
Brick dwellings	674	2,860,850
Frame stores and dwellings	65	179,825
Brick stores and dwellings	176	870,900
Frame tenements	1	4,000
Brick tenements	203	1,854,800
Brick stores and tenements	17	167,500
Frame stores and tenements	1	4,500
Public buildings and amusements.	52	523,100
Public buildings (municipal)	13	652,300
Manufactories and workshops	83	2,931,150
Churches	6	98,500
Schools	6	428,000
Hotels and boading houses	20	274,100
Hospitals	1	87,000
Storage warehouses	23	97,050
Office buildings	22	240,875
Garages	214	143,798
Stables	97	104,365
Other frame structures	456	139,825
Totals	4,813	$19,462,527

Results of building activity in Manhattan are expressed in the total figures for 1912 as follows:

Classifications.	No. Bldgs. 1912.	Cost.
Dwelling houses, cost over $50,000	13	$1,265,000
Cost between $20,000 and $50,000	5	173,000
Cost under $20,000	10	94,000
Tenement houses	182	30,452,000
Hotels	12	7,185,000
Lofts, etc., cost over $30,000	114	29,214,500
Cost between $15,000 and $30,000	21	496,000
Cost under $15,000	21	153,700
Office buildings	48	30,501,000
Factories and workshops	42	4,703,700
Schoolhouses	13	1,547,000
Churches	6	446,000
Municipal buildings	26	2,204,000
Places of amusement	78	6,347,600
Stables and garages	42	1,373,125
Other structures	124	169,510
Totals	757	$116,325,135
Total, 1911	840	$98,537,275

Plans filed and passed upon by the Bronx Building Bureau for new construction during 1912 were:

Classifications.	No. Bldgs. 1912.	Cost.
Brick dwellings, between $50,000 and $20,000	1	$22,000
Brick dwellings costing less than $20,000	156	953,750
Brick tenements costing over $15,000	598	25,098,000
Brick tenements costing less than $15,000	8	86,500
Frame tenements	1	8,000
Hotels	1	10,000
Stores costing over $30,000	5	205,000
Stores between $30,000 and $15,000	12	256,000
Stores, estimated cost less than $15,000	49	273,950
Office buildings	17	740,875
Manufactories and workshops	65	1,357,050
Schoolhouses	7	919,000
Churches	3	53,000
Public buildings (municipal)	9	1,445,500
Public buildings (places of amusement)	53	2,086,600
Stables and garages	91	339,045
Frame dwellings	187	779,200
Other structures	47	10,930
Totals	1,310	$34,644,400
Total for 1911	1,357	$22,837,060

One-family dwelling was the most popular sort of building erected in Brooklyn last year. Nine hundred and seventy-five were put up during the period at a cost not far below $4,000,000. Nine hundred and sixty-seven of them were buildings costing less than $20,000. Seven hundred and forty-nine two-family houses were planned, and specifications were passed on for 688 tenements to cost $13,887,500. Loft buildings, factories and garages and frame buildings were numerous.

The Manhattan operations cost about $27,000,000 more than the total expenditure of the other boroughs. In this borough the number of buildings planned was 83 less than in the preceding year, but there was an increase in cost amounting to more than $17,000,000, which more than made up for the slight shrinkage in numbers. There was no great falling off in any particular kind of buildings. Despite the cry of oversupply of loft space in the business sections there was no let up in the building of loft and store buildings. Last year 114 were planned against 116 for 1911. The difference in cost was nearly $10,000,000 in favor of the year just closed.

About $11,000,000 more was invested in office buildings last year than in 1911. In 1911 51 offices were erected at a cost of $19,591,800 against 48 last year at a cost of over $30,000,000. Apartment and tenement construction was about the same. Twelve more buildings were erected in 1911 than in 1912, and the difference in money spent in this line of construction was a little over a million dollars in favor of the latter period. There was one more dwelling costing over $50,000 erected this year than in 1911, two more hotels, six more factories, three more schools, nine more municipal buildings and six more amusement places. These were the only classes where gains were made in the number of structures.

The cost of new buildings and alterations in the Bronx for 1912 was 48 per cent. greater than in 1911. Over $25,000,000 was the estimated cost of tenement houses planned in 1912, which exceeded by over $11,000,000 the cost in 1911.

New Plumbing Regulations for Manhattan.

NEW forms upon which to file applications for plumbing and drainage will be in use at the Manhattan Building Bureau from now on. In these revised forms, according to the bulletin recently issued by Superintendent Miller, all unnecessary questions have been eliminated as far as possible, and the procedure has been simplified. All blanks used in connection with these applications must be typewritten and filed in triplicate—that is, one original and two carbon copies.

When filing a plumbing application, according to the bulletin, only two blanks will be required (in addition to such plans as may be necessary), namely:

Form entitled P. & D. Application (page 1).—This is the application proper, one copy of which, after approval by the superintendent, will be issued to the applicant as the permit required by the Building Code.

Form entitled P. & D. Application (Specifications).—This page is intended to give the bureau all information required which cannot well be shown on the plans and which is not already definitely covered in the Building Code or the Plumbing

SAND HOLES? NEVER!!

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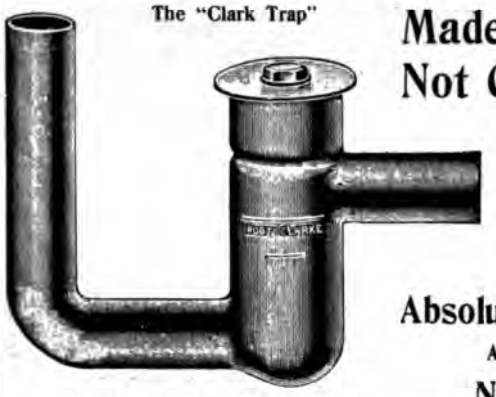

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New York City

THE PREDATORY PLUMBER

By Daniel F. Hanson.

Reprinted by permission from American Twice-a-Month Magazine.

JOHN MULDOON lost out as potential policeman by just one and three-eighths inches. Yet this loss was a distinct gain of three-eighths of an inch which should be credited to Prof. Michael McCarthy, who elongated John Muldoon by that much in a month. The professor offered to give a written guarantee that he could make up the entire altitudinal deficiency of the candidate in 60 days. To this Mrs. Muldoon tearfully objected, reasoning from the visible results of the first 30 days that her son John, at the end of two months, would be reduced to one dimension, and therefore diametrically opposed to police requirements.

So closed John Muldoon's experimentation in altitudinizing at Prof. McCarthy's Sanatorium.

Casting about for a life vocation into which she might thrust her John, Mrs. Muldoon finally decided on that of plumbing, being led thereto by a bill of $2 sent her to cover the repairing of a leaky faucet. Mrs. Muldoon had timed the plumber's stay on her premises from the moment he entered the front gate till it clicked after his retreating form. Between these two periods he had scheduled 25 minutes. The material used she could testify consisted of a small, imitation leather disc half an inch in diameter. In spite of her solemn and vigorous protest at the office, her bill remained at $2, with the further assurance that it was a cash figure—and delay in payment would mean an increase in it.

Mrs. Muldoon paid the bill and at the same moment decided on her John's future career. The possibilities which stretched before the young man of five feet seven and five-eighths inches were inimitable.

"The shorter a plumber is the better he is," gravely quoth the elder Muldoon, to whom the matter was referred after Mrs. Muldoon had made her decision, "but I am thinking you'll have a hard time getting him in."

At this the silent object of discussion who fittingly sat near the kitchen sink visibly brightened up, for a life vocation of any sort seemed a dreary prospect to the hitherto vocationless John Muldoon.

Mrs. Muldoon's first effort was made at a plumbing supply house in Lake St. The bland sales manager listened to her story, commended her good sense in choosing such a career for her son, and expressed regret that his establishment simply sold material, did not do any construction work and therefore had no need for plumbers. He, however, gave her a list of the most prominent master plumbers in the city.

"Among them you will surely find some one who can use your son as an apprentice," he asserted in bowing her out.

There were a dozen names on the slip—the first being that of the one to whom Mrs. Muldoon had paid $2. With a stubby pencil she carefully crossed it out. Although that master plumber had been the hand of destiny pointing the way of prosperity for her son, she still cherished resentment.

In turn Mrs. Muldoon called at the other 11 shops and tersely stated her ambition for her son. At 10 of them she was curtly told, "We don't need help of any kind." But the 11th plumber had just secured a job or collected a bill or may have been simply naturally loquacious.

MULDOON WAS NOT SURE WHETHER THE SMILE WAS ONE OF DERISION OR PITY.

"We are allowed one apprentice to every three journeymen. They are even talking of making it one to six."

Then as Mrs. Muldoon seemed mystified as to whether the cruel rule of limitation had originated with the mayor or her particular alderman he explained further:

"It is the union that says what we can do. Maybe you had better see the business agent—Nicholson is his name, and his office is in the Temple building in N. Clark St."

The next day, early, Mrs. Muldoon tied her rusty bonnet strings into a one-loop bow and walked up to the Temple building, where she sat for two hours awaiting the coming of Mr. Nicholson.

"Nothin' doing, ma'am. We have over a thousand applications now from young fellows who want to break in—nothing doing."

"You see," he added in a more soothing tone, as he saw her disappointment, "it is a three years' apprenticeship, with wages all the time. Then, at the end, a sure job at $5.85 for eight hours. So you see, ma'am, everyone tries to break in."

In the days that followed, Mrs. Muldoon visited every one of the 400 shops in the city, until at last, in sheer despair, she again called upon the one who had given her information about the union. To him she told the tale of her weary wanderings and her lack of success. The master plumber looked at her pityingly.

"It is worth something to you to have your son in a steady job, is it not? And you have some money saved, have you? Then take $100 in bills of 10 and go to ——, in Washington St., tell him your story and bring home with you as much of the money as you can."

Mrs. Muldoon followed the advice to the letter, and came away from the rendezvous with only one 10 left, but with credentials which placed her John as apprentice for a period of three years in the very shop where, only a few weeks before, she had protested so loudly against a bill of $2.

"It is fate," she soliloquized with a sigh. "Well, I'm glad John is settled for, though it cost a heap of money and lots of shoe leather. It is better for him than the Bridewell."

Concluding with this bit of philosophy, Mrs. Muldoon went home to break the news to her John.

Once given a good jolt, events moved rapidly. Within a week Mrs. Muldoon had the exquisite joy while looking out of her window of seeing a tall and portly gentleman, six feet by 200 pounds, immaculately dressed and smoking a gloriously banded cigar, walking leisurely up LaSalle Ave., while a few feet back of him staggered a slim chap under the burden of a gasoline furnace, a tool bag and half a coil of lead pipe. It was a well-known journeyman plumber and his helper, John Muldoon.

Mrs. Muldoon, looking through eyes misty with gratitude, felt that the world could present no more joyous picture, unless it might be her John ahead and the six-footer trailing after.

"I hope ye'rre learrnin' fast," she said that night as her John gloomily ate his supper.

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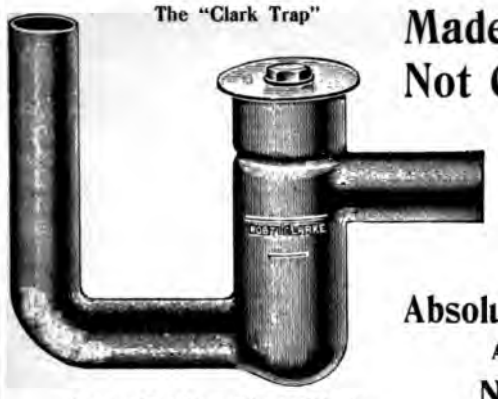

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Ohio News

THE Consolidated Heating Co., of Wellsville, O., has been given the contract for the new Knowles building in East Liverpool by the Potters' Lumber Co., They also have the contract for heating the new municipal building of Rochester.

A steam heating plant is being installed in the Fresno school building by W. F. Park of Coshocton, O. The system is said to be a splendid one and not only the rooms but the halls will also be equipped with heaters.

To Erect New Heating Plant.

IT is rumored at Racine, Wis., that the J. I. Case Co. is planning a large heating plant to be erected in connection with the million-dollar building now in course of construction.

Annual Meeting of the Cleveland Master Plumbers.

AT a recent meeting of the Cleveland (O.) master plumbers the following officers were elected to serve for the ensuing year: G. J. Wehrle, president; K. J. Knuth, vice-president; Eb Ellen, secretary; Henry Gerspacher, treasurer; and Frank Grimm, sergeant-at-arms. The association selected the following men to serve on the board of directors: W. E. Boyer, F. E. Manney, Wm. Koefstle, John B. Meyer, J. W. Southwell, T. P. McDermot, E. E. Hill, A. L. Bacher, W. H. Cleveland, A. W. Stark and H. W. Eckhardt.

Inspector Harlowe Honored.

MR. JOHN HARLOWE, Chief Inspector of Plumbing under Mayor Hunt, of Cincinnati, O., was the guest of honor at a dinner at Dan Murphy's in Opera Place, on the evening of Dec. 29. He was presented with a magnificent silver-mounted carving set. The several deputy inspectors and a number of the leading plumbers of the city were among the guests of the evening.

Cleaning the Water Mains of Cincinnati.

IT is of interest to note that during the past five years the water department of Cincinnati, O., had been almost constantly employed in removing deposits from the water mains of that city. Previous to 1907 the muddy Ohio River water, having a turbidity varying from seven parts per million to over 300 parts per million, was pumped directly into the distribution system. In 1907 the purification plant was installed and placed in operation. The deposits in the mains so decreased their capacity as to make it necessary to remove them, and although the work has been in progress for five years a large part of the system still remains to be cleaned. The enormity of the expense of cleaning will be recognized from the cost figures, which vary from 10 cents to 26 cents per foot of pipe cleaned. The carrying capacity of the distribution system is greatly increased after the deposits are removed and an increased pressure results at all points on the distribution system.

Employes of Esswein Company Have Christmas Banquet and Listen to Speeches.

THE annual banquet of the Samuel A. Esswein Heating & Plumbing Co., of Columbus, O., to its 100 or more employes was given Christmas Eve at Red Lion Hall, on South High St. O. J. Wheeler, vice-president of the company, was toastmaster, and responses were made by John A. Kelly, secretary of the Builders' and Traders' Exchange; Judge E. B. Dillon, Henry Carlisle, Frank Marion, Phillip Drehler, Thomas Hennessey, E. M. Fullington and Mr. Esswein.

A feature of the evening was an hour's entertainment given by the Twentieth Century Minstrels. There was fun galore intermingled with the courses of a very fine dinner which was served.

The employes of the firm presented Mr. Esswein with a magnificent cut glass punch bowl. The presentation speech was made by Henry Carlisle.

Columbus Board of Education Changes Heating System.

ALL bids on the new Crestview school building at Columbus, O., were rejected and new bids will be sought, according to decision of the Board of Education Dec. 23. This is owing to a change of plans for the building, made by the substitution of a steam-heating system instead of the hot-air system.

Steam heat is used in no Columbus school building at present.

To Renovate Public Building at Cincinnati, O.

IMPROVEMENTS involving the expenditure of several thousand dollars are contemplated for the Government building in this city by United States Surveyor of Customs Captain P. Lincoln Mitchell, Custodian.

The plumbing, according to Captain Mitchell, is now in a poor condition, much of it having been in use since the erection of the building. The same may be said of the electrical fixtures. No provision having been made for the electrical wiring of the building, all wires are now exposed. Old gas chandeliers, while handsome in appearance, are not suitable for electricity. All this Captain Mitchell desires changed, and he will urge its importance upon the arrival of the Government inspectors.

Cleveland Adds Another Brass Goods Industry.

CLEVELAND, O., has added another brass goods manufacturing concern to its already large list in that line. The name of the new company is the Victor Brass Mfg. Co., and will engage in the manufacture of high-grade brass goods.

The officers are Lou Brennan, president; Ted Moran, vice-president; Nick McGrath, secretary and treasurer; and Joseph H. Lyons, general manager.

The Plumbing Business an Art Rather Than a Trade in Akron, O.

THE rapid development of the building industry in Akron, O., makes a big demand for heating and plumbing. Every new house that goes up must have piping without end, of many kinds. There must be soil pipes, drain pipes, water pipes, often gas pipes and a lot of other pipes, and it is no small job to put them in. Plumbing is commonly referred to as a trade, but so far as Akron is concerned it has developed into an art. Journeymen plumbers are kept busy the year round, and the quantity of supplies, fittings and other accessories of their craft purchased in a year by the master plumbers would startle a man not acquainted with matters pertaining to the building trades.

And the plumbing that goes into Akron houses is up to date, too. Home builders have demanded the best and latest appliances on the market. The kitchen fittings have got to be just so, and so have the fittings in the bathroom and in every other part of the house. Nothing in the way of plumbing is too good for the man who is building a home. The smallest details receive his serious attention, and everything is selected with the utmost care not only to secure those things which suit the particular taste of the builder but to see that it combines aesthetic beauty with utility and durability.

As in other departments of structural engineering, a very decided advance has been made in about everything the plumber uses within the past few years. This does not refer to prices, though, so much as to the equipment a plumber installs in a residence. New appliances have been perfected, old ones have been improved and the entire product of the plumber's art elevated to a higher standard of excellence. Many devices for making matters more convenient for the housewife have been devised, and old devices have been remodeled so as to make them more ornamental and more useful.

In these days of enlightenment many of the fixtures a plumber is called upon to install are constructed with a view to making everything as sanitary as possible. To this end enameled sinks and bathtubs, as well as set bowls, and sometimes even washtubs, must be enameled. Porcelain bathtubs and sinks are not uncommon. Slate and soapstone are favorite materials for washtubs and are installed more frequently, perhaps, than anything else. Wooden tubs belong to the past and are rapidly becoming obsolete. In the houses

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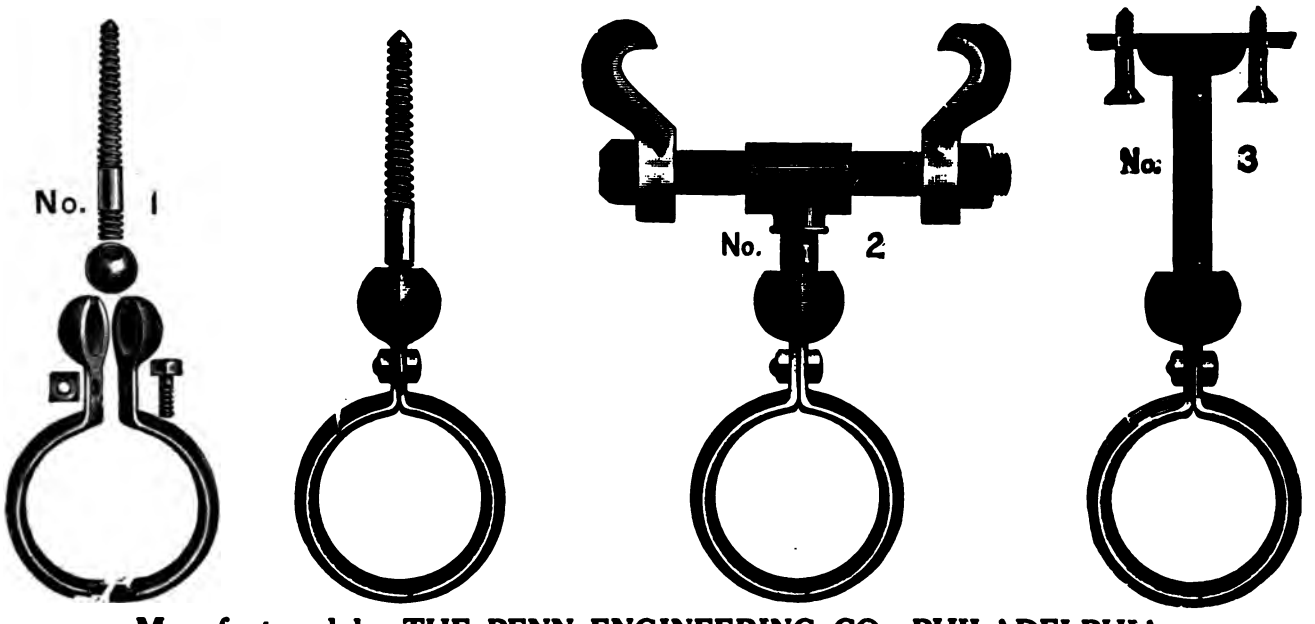

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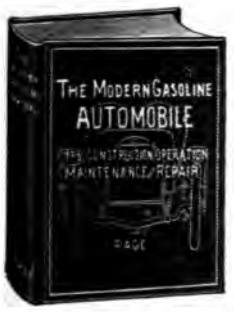

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MERCHANT PLUMBER and FITTER PUBLISHING CO., 200 Fifth Avenue, New York

weight, but it all availed nothing against the trained Muldoon whose agility was that of a cat, now on this side, now on that, landing again and again on the plumber's head, face, chest and shoulders, till it seemed to Schmitz as if he were fighting a regiment intsead of one solitary stripling.

But are not the annals of this battle still told where plumbers congregate, and did not Muldoon in later years prosper because of it? And were not also the injuries of one of the combatants a matter of record for several days on a bed tablet in a near-by hospital?

When Muldoon at last turned from his prostrate foe it was to hear a pounding of the various locked doors and to see Lena looking out from the linen closet. His first attention was to her, and consisted in taking her in his arms, where she seemed to be content, and in kissing her eyes, chin and mouth as often as he had hit Schmidt —all of which she did not resist. In fact, he was positive of a return pressure when his lips were on hers.

Then he unlocked the doors.

III.

A week later the regular monthly meeting of Local 22, National Journeymen Plumbers' Association, indulged in an unusually long session, during which it was frequently necessary for President O'Brien to gavel the members into order.

The discussion ended with the sergeant-at-arms being instructed to "Bring him in."

"Him," in this case, proved to be John Muldoon, at whose entrance the entire membership turned round to face the door.

"We have been told that you would like to say a few words to the members, Mr. Muldoon. While such is an unheard-of occurrence, the gentlemen have decided to let you have five minutes."

It was noticed by some that President O'Brien grasped the gavel with unusual firmness while speaking, and held it tightly even after sitting down.

"You can speak from the floor," he added hastily, as Muldoon showed signs of taking the rostrum.

"Mr. President and Gentlemen," Muldoon began, but seeing the possibility of invidious comparisons, corrected himself, "and other gentlemen: I want to make application for regular journeyman's papers. It is true I have worked only nine months as a helper, but besides I have plugged nights, Sundays and holidays in practising up, and I can wipe a joint, whether it or I am standing up, or whether we are lying down, and can do it quicker than any of you gentlemen——" here he saw by the clouds on the faces of his audience that undue speed might not be the best of recommendation with the knights of the wiping cloth; so modifying his last statement somewhat ungracefully, "as fast as any of you, then."

"This is rather an unusual request, Mr. Muldoon."

"I know it is not the regular thing; if it had been I would not have come here, but have gone ahead without you. I could, outside the union, as it is, but I'm too good an Irishman for that."

This tribute to a dominant nationality met with a ripple of applause.

"Well, Mr. Muldoon, we will consider the matter and let you know."

"I think I'll wait here till you decide," said Muldoon, and sat down in the secretary's chair, which happened to be empty, and looked straight into the bandaged face of Mr. Schmitz.

"I think you had better retire and let us talk it over," suggested President O'Brien, though not with that forcefulness usually characteristic of him.

"And haven't you been discussing it all evening? Did I not hear you talking through the closed doors, sometimes all of you at once? Did you not know what I was going to say? Now if there is any one of you in full state of health who has anything against me, let him speak it out. The lieutenant of the station across the street is a friend of mine—if I speak a word to him he will not disturb us."

Muldoon looked slowly around the room, then at the president.

"I'm sure, Mr. Muldoon, most of us—all of us, in fact, admire you in many ways—in all ways; only it is a little unusual. Well, gentlemen, what is your pleasure?"

"I should like to ask Mr. Muldoon," someone spoke from the floor without identifying himself by rising, "whether getting journeyman's credentials would help him to a job. Might not master plumbers refuse to hire him at regular wages?"

"I already have three jobs offered me and more to hear from."

There was a silence in the room, broken finally by the president's, "What is your pleasure, gentlemen?"

Then followed a lumbering noise, somebody was getting up by stages. It was Schmitz, ex-champion of Local 22.

"I move, Mr. President, that the secretary issue the papers to Mr. Muldoon; he is a good workman, better than most of us ole-timers, and all-fired handy with his fists. He'll be a credit to us."

Applause long and loud greeted this appeal as Schmitz was helped back into his chair.

Muldoon was again on his feet.

"As I am to be one of you in a few minutes, I'll invite you to my wedding tomorrow to Miss Klein. Some of you know her and there is nothing against her. He gave a look around to be greeted with:

"No, no, I should say not!"

"We are to be married at the Cathedral on N. State, and have a wedding supper at my mother's, 800 LaSalle Ave., third flat. I want you all to come."

New York State Notes.

BY the letting of the school contract to Thomas Dunn, of Saratoga Springs, recently, a local firm of Ballston Spa, N. Y., Thomas J. Tracy's Son, becomes one of the sub-contractors, having charge of the installation of the heating and ventilating plant.

Harry Boyne, of Catskill, N. Y., has just installed a new hot-water heating plant in the Catskill Automobile Co.'s garage.

The State architect has been advised that the executive committee of the board of trustees of the New York State School of Agriculture at Morrisville has recommended the awarding of the contract for the heating work in the new demonstration building to the Gaylord & Eitapenc Co., of Binghamton, N. Y. The bid of the Gaylord & Eitapenc Co. was $1,643.

Parker & Cleveland have been awarded the contract to install the hot-water plant in the Old Ladies' Home at Greenwich, N. Y.

William F. Hurley, chairman of the Board of Examinnig Plumbers of Binghamton, N. Y., whose term expires Dec. 31, has been reappointed by Mayor Irving.

Registration of plumbers and sewer-pipe layers with the Department of Health of Binghamton, N. Y., for the year 1913, as required by the plumbing law, has begun, and the books are now open for signatures. All master plumbers or persons engaged in laying sewer pipe will be required to call at the Health Department and affix their signatures before Dec. 31, or they will be unable to do business in that city next year.

Master and journeymen plumbers of Dunkirk, N. Y., are registering this month in accordance with the rules of the health board, which require all plumbers who wish to follow the business in Dunkirk next year to register.

Bids were opened Dec. 14 for installing the heating system in the new addition of the city orphanage at Ogdensburg, N. Y. There were three tenders and the figures were unusually close, only $6.31 separating two of them. They were as follows: E. J. Burns, $4,358; F. Rapin & Co., $4,176.31; Hackett Hardware Co., $4,170. The last named was awarded the contract.

President Lasette and Secretary Hannegan Experience Successful Trip Through the State.

THE New York State Association of Master Plumbers may well be proud of the active and energetic president, Frank B. Lasette, and his able lieutenant and secretary, John J. Hannegan. In taking office last March in the city of Troy, President Lasette promised to give the best that was in him. The same sentiments were voiced by Mr. Hannegan. No idle words these. The gentlemen in question have lived up to their promises—handsomely, it may be said.

They have just returned from their most

recent journey through the State, and the results accomplished are flattering indeed. That their methods are correct in the extreme are vouched for by the new members, whom they have secured in quantity, and by the glowing reports which met them wherever they stopped.

These gentlemen had a splendid opportunity to gauge the prosperity of the craft throughout the Empire State, and their conclusions are that never before in its history has the craft enjoyed such a period of prosperity. In some of the smaller cities and towns the rush of work is so great that, because of the difficulty of securing adequate and experienced labor, the master plumbers have been obliged to turn the work away.

In the city of Buffalo, the home of Vice-President Walter H. Caines, there are seven-eighths of the master plumbers actively engaged in business in the association, a remarkable percentage. The conditions in Rochester, the Flower City, and the home of Fred E. Fladd and Louis Yauchzi, as well as all others in the Ampor Club, are about the same. In Syracuse, the home of B. Joseph O'Donnell and Ed. Joy, the champion bowler, 100 per cent. is reported, the banner organization in the State.

Good work was done in the city of Oswego. President Lasette and Secretary Hannegan report that their efforts were instrumental in bringing every master plumber in the city into the association. Watertown, the home of Treasurer Charles Campbell, embraces all active master plumbers in the local association.

Continuous work was required to bring the light to the master plumbers in the city of Utica. Two or three trips, however, turned the trick, and 100 per cent. is the record for this city.

In Elmira nine out of 13 master plumbers have been brought into the association. In Binghamton conditions of a highly satisfactory nature were observed. Every master plumber in the city is happily affiliated.

In the Borough of Richmond (Staten Island) a local has been successfully organized, with a total membership of 36 members.

State President Lasette, accompanied by Mr. Hannegan, visited the Albany, N. Y., local upon Dec. 4, upon which evening the newly elected officers were inducted into office.

President Thomas F. Nolan, who presided at the business session of the local, declined to be a candidate again for the office of president. He said he thought four years' continuous service should satisfy the ambitions of most any man. The election resulted in the unanimous choice of the following named gentlemen:

President, Albion J. Eckert; vice-president, Wm. H. Branion; recording secretary, James H. Doody; financial secretary, Frank F. Schimpf; treasurer, John E. Dugan; sergeant-at-arms, Joseph O. Stapf.

Trustees — Thomas A. O'Malley, Jacob Noord and Hanford C. Whitbeck.

President Lasette, assisted by his secretary, installed the officers and took occasion to mention the good work which has been done by this association in its 30 years of active and successful existence.

A vote of thanks was extended to the retiring officers.

As everyone in the trade knows, the Albany, N. Y., association numbers many prominent State master plumbers upon its roster. T. E. Kerwin, the able and forceful chairman of the legislative committee, is always on the job to look after the interests of the association so far as legislation is concerned. Retiring President John Moran, who closed a successful term of office in Troy last March; Thomas E. Nolan, who has been president of the Albany local for many years; Treasurer Frank Schimpf, Horace F. Westcott, and a host of good fellows whom we meet often at State and national conventions were present, and a rare evening's enjoyment was the result.

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Bathtub Famine in Ohio.

NINETY-NINE out of every hundred persons you pass, provided you do your walking in Ohio, are without the civilizing influence of bathtubs, according to J. A. Brady manager of the Midland Life Insurance Co., who spoke before the Cleveland Ad Club recently. Brady declared Ohio is almost a virgin field for an enterprising manufacturer of bathtubs, and said that if cleanliness is next to godliness Ohio is far from grace during the Winter season, when swimmin' holes are out of the question.

Crook, Kries & Co., Baltimore, Md., heating engineers and contractors, have removed their offices to 218 W. Saratoga St.

MARTIN DUGAN has opened up a new shop and showroom at 905 Second Ave., Manhattan. Mr. Dugan was formerly in business at Long Branch, N. J., but concluded that New York presented a larger field to display his abilities. He has already landed some nice contracts, and looks forward to a busy season.

A busy jobber of plumbers' and gas fitters' supplies on the East Side of Manhattan is Morris A. Friedman, of 164 Ave. C. Although in business only 15 months, Mr. Friedman has built up quite a trade in his neighborhood.

Francis Celia, of 338 E. 116th St., Manhattan, is quite busy overhauling, and is enthusiastic on the future prospects of his business.

Sam Friedlander, of 5 W. 116th St., Manhattan, has a number of steam and plumbing jobs, one of which is installing a steam plant at 502 W. 45th St., in which he will use about 2,500 feet of radiation.

Anthony Polzella, of 512 Cortlandt Ave., Bronx, is installing the plumbing and steam fitting of the new seven-story storage warehouse on Jackson Ave. and Pontiac Place, Bronx. He has also four fine contracts for plumbing and steam heating at Williamsbridge.

The Prodgers Plumbing Co., of 50 Fulton St., Manhattan, is busy installing the plumbing and heating in a five-story building on Cliff St., near Beekman; also an eight-story building at 466 Washington St. Mr. Prodgers is one of the old-time plumbers still holding the fort in lower New York, and has been very prosperous.

Cantwell & O'Neal, of 178th St. and Webster Ave., Bronx, have opened a branch at 119 E. 120th St., Manhattan. They are doing a nice jobbing and overhauling business, and would like to hear from the supply trade in the way of calendars and catalogues.

Robert F. Ludwig, of 2640 Broadway, Manhattan, has a number of "steadies" continually on hand. He has a good class of customers, and seldom has to solicit work from outside.

Manhattan Master Plumbers Celebrate with Annual Reception.

NOTHING succeeds like success. When the committee was appointed to make arrangements for the annual vaudeville entertainment, reception and ball, it was expected of them that their effort would outshine any previous success of the New York City Master Plumbers Association, Manhattan Branch. The confidence placed in them by their fellow officers and members was justified by the excellent response which was given to the invitations to attend the Manhattan's annual At Home party Wednesday evening, Dec. 11, 1912, at Terrace Garden, Lexington Opera House, New York City.

As early as 7:30 P. M., ladies and gentlemen began to arrive to secure points of vantage from which to watch the delightful and interesting show which had been generously provided for them. Carriages, autos, taxis were soon snorting at the Lexington Opera House entrance, and the good natured bustle and hustle preparatory to stowing away wraps, head coverings and coats in the respective dressing rooms gave promise of a happy and enjoyable time.

Visiting guests from many cities were observed from the MERCHANT PLUMBER AND FITTER box, and doubtless this most recent annual affair was more notable than others in this respect. Prominent officials from the various city departments likewise attended, and from all angles the meeting was a thoroughly representative one.

The feelings of amity and good will existent between the various branches of our business were expressed in the large and general attendance of trade celebrities. Principals, managers and salesmen were everywhere to be seen lending a hand to the general success of the evening's function.

The vaudeville program was composed of a series of headliners, the names of the various artists and artistes appearing are now presented:

Clemmons Bros., Hazel Goode, L. C. E. Jordan & Co., Four Harmony Girls, Rice and Cady, Florence Tempest, Coats and Margerette and Baarggaar Brothers.

The bill was an exceptionally good one and was well received by the master plumbers and their guests.

At 11:15 o'clock the grand march was under way, and amid the inspiring strains of Van Baar's military band, President Bart Donohoe and wife, followed by about two hundred couples, marched and countermarched with a precision that brought forth the plaudits of the box holders. With the throng could be noticed many of the old-timers in our trade who forgot for the nonce that they had passed the allotted span of three score years and entered into the spirit of the occasion with a zeal that would have given credit to a younger generation.

A source of admiration during the grand march were the beautiful gowns worn by the wives and daughters of the master plumbers, but it is beyond the power of our representative to extol the beautiful dreams of the modiste's art. We leave it to the imagination of our lady readers who were unable to attend.

To the music of "My Little Persian Lamb," by Usher's orchestra, the plumbers and their partners started in the mazy whirl of the waltz and two-step and continued throughout the 18 numbers that the program called for, up to the conventional finis of "Home, Sweet Home."

National, State and local association officials were in striking profusion, the following prominent gentlemen being noticed:

National President Frank J. Fee, National Secretary Charles Murphy, National Treasurer Wm. McCoach, National Directors Robert E. Quinn, Isaac J. Brown, S. Louis Barnes, and National Executive Clerk Emmett Crosby.

Philadelphia, Pa., was represented by William McCoach, S. Louis Barnes, D. F. Durkin, Jr., Geo. F. Uber and George Moeller.

New Jersey was in line with ex-President A. Selden Walker and wife of Newark; National Director Robert Quinn and wife, and John T. McBride and wife, of Paterson.

Patrick J. Sullivan, president of the Boston local association, represented Massachusetts. From the Empire State we noticed Charles Campbell, treasurer of the New York State Association, accompanied by Mrs. Campbell, of Watertown, and John E. Dugan, of Albany; President Joseph Theiss, of the Bronx local; William J. Flynn and wife, of the Bronx; W. J. Barry and wife, of Staten Island; Charles Frean, secretary of the New York Plumbing Exchange; Rudolph P. Miller, Superintendent of Buildings for Manhattan, and James A. Henderson, Superintendent of Buildings for the Bronx. R. T. Rock, of Bridgeport, secretary of the Connecticut State Association was also on hand to represent his State.

Among the missing was the general vice-president of the Manhattan local, T. S. Cochrane, who was confined to his home.

At 1 o'clock A. M. the plumbers with their guests adjourned to the banquet hall, where an elaborate spread was prepared and full justice was given the menu from beginning to end. The hour was pleasantly passed with impromptu speeches and witticisms by the merry banqueters.

At the suggestion of President Bart Donohoe a toast was given to National President Frank J. Fee, which brought the diners to their feet with enthusiasm.

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A silent toast was given to "our absent brother," T. A. Hill, and a decided gloom was felt when the assemblage were informed that their worthy ex-president was in the hands of the surgeons for the third time in the past few years.

Unstinted credit was earned and must be given the various officers of the association and the serving committees, the names of which and the position which they so adequately and successfully filled during the evening follow:

Officers—B. F. Donohoe, president; T. S. Cochrane, vice-president; T. J. Cummins, treasurer; Harry Hemlin, secretary; Thos. P. McLoughlin, financial secretary; Philip Eich, sergeant-at-arms; Jacob Jarcho, marshal.

Trustees—Charles Murphy, chairman; T. A. Hill, J. L. Murphy, Jno. Renehan, Isaac J. Brown, Alex J. Brown, executive clerk.

Committee of Arrangements—T. A. Hill, chairman; Geo. H. Creasy, secretary; Isaac J Brown, treasurer; J. P. Knight, Thos. P. McLoughlin, B. F. Donohoe, F. B. Lasette, T. J. Cummins, Harry Hemlin, Frank J. Fee, John R. Hopkin.

Reception Committee—T. A. Hill, chairman; John Byrns, B. F. Donohoe, Wm. Young, No. 1, Jas. P. Knight, J. L. Murphy, T. S. Cochrane, Morris Jarcho, Geo. H. Creasy, Thos. P. McLoughlin.

Floor Director—John J. Hannegan.

Assistant Floor Directors—Harry Hemlin and Jno. R. Hopkin.

Floor Committee—David Dergan, Monroe M. Golding, J. F. Griffen, Thomas P. McLoughlin, Charles Murphy, Herbert Smith, August Hansen, P. F. Kenny, J. L. Murphy, A. S. Gaynor, B. A. Buge, Jno. D. Cooley, James Armstrong, Jno. B. Ackerson, Jack Abrams, Ed. J. Brady, Paul S. Bolger, Philip Brady, John P. Blair, F. J. Begen, Jno. W. Cooney, W. G. Cornell, M. J. Canavan, Chas. Catania, Harkness B. DeVoe, Jere J. Delany, David Deigan, Jno. J. Falihee, Jno. D. Gunn, A. E. Jackson, J. H. Jasper, Jno. L. Knight, Joseph Klein, Jno. A. Long, Jas. S. Lawlor, Jacob Levy, Thos. F. McCaul, Ed. J. McCabe, No. 1, James McCullagh, Cuno Muller, Louis Moeschen, Hy. A. Neumann, Jno. C. O'Neill, Wm. J. O'Hare, Jonas A. Rossman, Ed. J. Renehan, Milton Schnaier, I. O. Shumway, Philip Smith, John Smith, No. 1, Emil Spindler, Geo. W. Simmons, Fred'k Schwarz, Jno. A. Sharp, Hugh M. Taylor, Sam'l D. Tomback, Walter A. Treacy, William Thompson, Frank J. Weisberg, Walter J. White, John Weiss, Wm. Young, No. 2.

Trade representatives greeted by our W. J. Marshall, John H. Parker and W. G. McCormick follow:

Louis and C. E. Wheelwright, Roberts Filter Mfg. Co.; H. V. Swalm, Colwell Lead Co.; A. C. Tiedeman and Fred Diedrick, J. L. Mott Iron Works; Arthur M. Crane, D. L. Klein and J. W. Long, New York Continental Jewell Filtration Co.; John Granson, Thomas Robb, Wm. McGuire, Sam Hermann, Wm. Laird, Frank McTammany, Alex. Sweeney, Ed. Ludington, Ronalds & Johnson Co.; E. N. Cokefair, Magee Furnace Co.; McLoughlin & Donovan in person; T. R. Rourke, Wm. White, Wm. Connolly, R. Raub, L. Lee, E. Morgenthal, H. Nilsson, Crane & Co.; Louis Schnair and Raymond Brown, Jiffy Fire Hose Rack Co.; M. Katron, N. Y. Modern Brass Works, Inc.; Manny Florsheim, United Plumbers' Supply Co.; Billy Bapst, Trenton Potteries Co.; Asa C. Crookston & Bro.; John Delaney and Ed. Griffin, Coyne & Delany Co.; Wm. F. Hennessy, H. Mueller Mfg. Co.; J. W. McCormack, Lead Lined Iron Pipe Co.; Geo. Heim, United Lead Co.; E. A. July, Loomis-Manning Filter Co.; W. Lockwood, Pittsburgh Meter Co.; Mrs. Sam Glauber, S. S. Glauber, Inc.; Vice-president D. Cleveland, Wm. Grotty, John Kitchen, Central Foundry Co.; G. W. Mitchell, W. H. Hussey & Son; E. A. Pinchin, Wolverine Brass Works; Fee, Fee & Mason; Percy McElrath, Electrical Repair Co., Ins.; J. F. Rockwell, Phoenix Soapstone Co.; Howard M. Bullard in person; Geo. W. Heiland in person; A. T. (Fred) Howe, Borden Co.; E. Smolka, Smolka Plumbing Supply Co.; Charles F. Webber, Speakman Supply & Pipe Co.; McMann & Taylor; Geo. E. Sealy Co.; Robert Keasby & Co.; John A. Murray & Co.; Standard Sanitary Mfg. Co.; Flushovalve Co.; Glauber Brass Mfg. Co.; John Simmons Co.

NOTES.

Among the many pleasant diversions during the ball was the finely executed solos played on the cornet by Milton Schnair, whose fame as a musician is far-reaching. His efforts were applauded to the echo.

George Heim, the silver-toned tenor, was escorted to the stage and rendered "Where the River Shannon Flows." George was in fine fettle, and when George is feeling good he is some singer, believe us.

The veteran, ex-National President John Byrns, with his estimable wife, were the third couple in the grand march—the reincarnation of youth.

Patrick J. Sullivan, president of the Boston local, made great sacrifices to attend the Manhattan ball, as his presence was required at home evenings. He did not tell why, but we know—it's a little girl. THE MERCHANT PLUMBER AND FITTER extends congratulations to the happy parents.

National Treasurer McCoach offered to send President Donohoe a box of cigars Christmas, but Bart having in mind the brand of smokes given out by Mr. McCoach, waived the present with the remark: "Cut 'em out, Bill—a pipe for mine."

Minutes of Meeting of New York Chapter American Society of Heating and Ventilating Engineers, Dec. 17.

THE regular monthly meeting of the New York Chapter was held in the Engineering Societies building, 29 W. 39th St., New York, on Tuesday evening, Dec. 17, 1912, with President Frank G. McCann in the chair.

After the roll call and reading of minutes the report of the auditing committee was received, and the committee discharged.

The secretary announced that the board of governors had appointed the following committee to assist the officers of the society in connection with the forthcoming annual meeting: Homer Addams, chairman; Frank T. Chapman, Frank K. Chew, P. A. Hoffman, R. B. Hunt, C. E. Scott, R. C. Taggart, W. S. Timmis and A. S. Armagnac.

Arthur K. Ohmes then gave a talk on the interesting features of the heating and ventilating plant of the Hotel St. Regis, followed by a discussion, in which the following took part: Frank T. Chapman, James A. Donnelly, A. S. Armagnac, W. W. Macon, W. H. McKiever, W. S. Timmis, Frank G. McCann, F. K. Davis and Arthur K. Ohmes.

After lengthly discussion it was voted not to incorporate the chapter.

The following were present: Frank G. McCann, Arthur K. Ohmes, Joseph Graham, Arthur Ritter, William M. Mackay, Conway Kiewitz, W. W. Macon, Frank T. Chapman, Frank K. Chew, Homer Addams, F. K. Davis, C. E. Scott, W. S. Timmis, J. A. Donnelly, G. G. Schmidt, W. G. W. Turno, G. D. Farnham, A. A. Kiewitz, George O'Hanlon, P. H. Farbricius, J. I. Lyle, R. B. Hunt, C. F. Chase, E. J. Treat, A. S. Armagnac, P. A. Hoffman, W. H. McKiever, L. L. Lewis, W. F. McKennett, A. L. Baun, R. D. Sutton, W. T. Bonner, R. J. Sovereign and C. C. Lincoln.

Annual Ball of the Bronx Branch of the New York Master Plumbers.

ON Jan. 31 the Bronx Branch of the New York Master Plumbers' Association will give their annual ball in the New McKinley Square Casino, at 169th St. and Boston Road.

The committee is straining every nerve to make this the most successful affair ever held by the association, and many new features will be added that will really be a surprise to the faithful that have followed the lead of the Bronx association.

The success of the entertainment is fully assured by the critical gentlemen who compose the committee as follows: John J. Foley, chairman; William J. Flynn, V. F. Bernesser, S. J. Welch, David Durie, Jr., and Secretary Thomas F. Moffett.

Ventilating Equipment in the Ritz-Carlton Hotel, New York.

AN annex to the Ritz-Carlton Hotel, New York, is now in the course of erection and the following notes describe a part of the ventilating system used therein. Because of the arrangement of the building the ventilating system is installed in four separate divisions, providing for the banquet hall and ballroom, service floors, private dining room, and toilet-room exhausts. The first division is the largest, handling 50,000 cubic feet of air per minute. The banquet hall is located below the street level, and just above it is the ballroom, the area of each room being 50x90 feet; the height of the banquet hall is 20 feet and of the ballroom 30 feet. The ventilating equipment for these rooms is located just above the ballroom.

The air, drawn in by a fan, passes first

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over a tempering coil which warms it above the freezing point of water and then through a washer which purifies it. It is then heated to the proper temperature by passing through a reheater and is distributed through ducts. The tempering coils and reheater consist of radiator sections heated by steam, controlled by a thermostat so that the temperature of the air is always at the proper point.

In Summer the air is cooled by means of direct-expansion cooling coils placed in the spray chamber of the air washer. Frost is prevented from forming on the outside of the pipes by a constant spray of water flowing over the coils.

In the Winter, when warm air is brought in, it enters through the ceiling and exhausts through the floor registers. In the Summer, however, this order is reversed and the cold air is brought in through the floor and the exhaust taken out through the ceiling registers. The efficiency of this arrangement, it is said, is due to the fact that the heated air introduced is at a higher temperature than that of the room, and on entering its temperature is reduced so that the flow of air is downward, and the proper place to remove the foul air is at the floor level. On the other hand, when cold air is introduced at a lower temperature it is heated on entering, produces an upward flow and the foul air goes out at the top. The reversal flow is obtained by means of a reversing damper.

The system is designed to change the air in each toilet room once every four minutes and in the other rooms once every six minutes.

The blowers throughout the building were furnished by the B. F. Sturtevant Co., of Hyde Park, Mass., and the motors by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. The motors are the SK type, designed for operation on 240 volts, direct current, and are arranged for speed adjustment.

At the meeting of the trustees recently the bids were opened for the contract for the heating of the Bradford Hook and Ladder building, Bennington, Vt. The bids were as follows, the lowest, M. B. Burnham, being awarded the contract: William Nevils, $550.63; D. T. Murray, $497.64; Winslow & Craven, $489; M. B. Burnham, $480.

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THE W. H. Lowe Co., of Waterbury, Conn., has filed a certificate of incorporation with the Secretary of State, showing the incorporators of the corporation to be William H. Lowe, Helen E. Lowe, Edmund R. Heebner and George L. Goodroe. The authorized capital is $10,000, and a general plumbing and heating business is to be carried on. The amount paid in is $2,500.

A new heating plant is to be installed at the public library at East Bridgewater, Mass.

In order to provide a heating plant for all of the buildings on Center Hill, Somerville, Mass., which will include the new library building at the eastern end of the hill, an expert heating engineer will be employed at a cost of $250 to make a study of the subject.

William Valler, for several years a local plumber, died Dec. 6 at his home, 2 Cottage St., aged 43. He is survived by his wife, Mrs. Effie Valler, and a sister, residing in Saugus.

It is understood a new plumber is coming to Amesbury, Mass., and will take a store on Market St. The plumbing business expects a big boom next Summer, as soon as the new sewers begin to be laid through the streets.

L. A. Weston, of Dean St., North Adams, Mass., has nearly completed the putting in of a modern automatic sprinkler system in the new addition built onto the L. L. Brown Paper Co.'s plant on Center St. The addition, which is of brick, is on Liberty St., and is a new storeroom and stockhouse. The other necessary piping and plumbing was also done by Mr. Weston.

The contract for installing the heating and ventilating apparatus for the Masonic Temple, on Mower Ave., Worcester, Mass., has been awarded to M. D. Holmes & Sons Co.

Tucker & Rice, of Worcester, Mass., have the contract for the plumbing in the new Church of Christ, Scientist, Oberlin and Main Sts.

The John H. Fitzgerald Co., plumbers, has been incorporated at Boston, Mass., with a capital of $10,000. Grace B. Ducett and Thomas F. Fitzgerald, both of Boston, are the incorporators.

Harry Tebbetts has opened a plumbing business in one of the stores in Masonic block at Readfield, Me.

Westfield Block Burned with Loss of $9,000

A TWO-STORY wooden building on Main St., owned by the H. B. Smith Co., of Westefild, Mass., and occupied by Moseley & Maschin, plumbers, and C. A. Tinker, an architect, was burned Dec. 15, with a loss of about $9,000. The fire started in the rear of the Moseley & Maschin basement from some unknown cause.

When the fire was discovered it had gained such headway that it was impossible to save anything from the store, and although the furniture was removed from Mr. Tinker's office, many valuable plans were destroyed by fire and water. The walls of the building remained standing, but the entire interior was burned out.

The loss on the building is about $3,000, and the combined loss of Moseley & Maschin and Mr. Tinker will probably aggregate of $6,000. This is the fourth large fire which has occurred here within three weeks. The total loss sustained in all of the fires will amount to $70,000.

Shower Baths in the Schools.

FREDERICK L. MURPHY, inspector of plumbing of Clinton, Mass., has drawn the specifications for the work of installing six shower baths in the high school gymnasium annex, and has sent a copy of them to every plumber in town, requesting a bid on the work to be submitted to Charles L. Hunt, superintendent of schools, who has charge of awarding the contract. The school committee has decided to have the work done during the Christmas vacation. The bath equipment has arrived, along with an up-to-date heater for heating the water.

Inspector Murphy will have general supervision of the work.

Each of the six showers to be installed is equipped with a patent shower head, with non-scalding valves. This is something new in this line, and will prevent anybody from being scalded should too much hot water be turned on at a time.

The shower baths will be arranged in stalls constructed of either slate or reinforced concrete, whichever can be built at a cost which will not exceed the balance of the appropriation. A Model 8 Rude instantaneous heater, which will be used for heating the water for the baths, arrived to-day. This heater burns gas, and was suggested to Inspector Murphy. It is the same make as the one in use at the town hall, only of a larger model.

The school committee and Inspector Murphy recently visited a Worcester armory, where one of these heaters was in use for heating water for 12 showers. If at any time the committee wishes to increase the number of showers no change will necessarily have to be made in the heating apparatus. It was first suggested to the committee that a small stove could be installed for heating the water, but the fact that a gas heater has been put in will mean a saving on the coal end of it. There are several gas burners in the heater which have but a small flame when no water is being drawn, but as soon as the water is turned on more gas will be automatically turned on. The heater will not require attention by the janitors.

An appropriation of $500 was granted by the town to cover the expense of installing this apparatus.

During the day the baths can be used by the school children, and in the evening it is expected that they will be open for the use of the townspeople.

New Bedford, Mass., High School in Bad Shape.

JOSEPH L. GIBBS, superintendent of public schools of Fall River, Mass., in presenting his report to the common council of his city says, in part, as follows:

"In accordance with your order that I submit a plan for necessary changes, repairs, etc., to put this building in a suitable condition for school purposes, I herewith submit the same as follows :

"Interior, Heating and Ventilating.—The present boilers having been condemned after giving service for 32 years, and the heating and ventilating system throughout being of the obsolete type, and which does not comply in a single instance with the State laws governing the same, the piping, fittings, etc., being in a poor condition through service of many years. It is my opinion that all of the heating and ventilating system, including piping, radiators, etc., should be taken out throughout the building and a new boiler, with a modern mechanical system of heating and ventilating, installed in its place.

"Sanitaries and Fire Protection.—Sanitaries in the boys' and girls' toilet rooms are in an extremely bad condition, especially in the basement. The water closets,

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which have been inclosed with wood partitions, seats, etc., are built in such a manner that it has been impossible to keep them thoroughly cleaned, especially on their outside surface, and they are of a type that cannot be properly flushed, sealed or ventilated. The urinals are in the same condition. All of the plumbing and fixtures in the basement as well as the fixtures on the first and second floors should be torn out and new, modern plumbing, including fixtures, installed.

"There should be a larger water service to enter the building, and at least two lines of two-inch pipe connecting with the same in the basement and extending up through the corridors to the attic, with a valve and 75 feet of hose, with a suitable nozzle and hose rack on each line at each floor, including the attic.

The Roman Method of Heating.

LIKE many other Roman houses that have been unearthed in England, one recently brought to light was heated by a system called "hypocaust." The entire basement was one big furnace, from which flues ascended, built into the walls. A wood fire was kept in the basement, the fuel being fed in from an outside annex.

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New Jersey Notes.

COOK & OAKLEY, the Red Bank, N. J., plumbers, will soon start the erection of a fine three-story brick building in Front St., on the site of the building they now occupy. Business will go on as usual during operations. Ernest Arend, of New York and Asbury Park, is the architect.

Smith & Bozarth, the contractors who are installing the new heating plant in the Tuberculosis Hospital at Trenton, N. J., announce that the work will be completed by the end of the year. The pipes and radiators have already been installed, and the foundation for the boiler has been laid. This week the boiler will be placed and the proper connections made.

Master Plumbers Scrapping Over City Examiners.

THAT a lively fight is being waged by members of the Master Plumbers' Association of Bayonne, N. J., over the selection of a man to appear for the organization on a board of examiners for licenses to be named by the Bayonne Board of Health, developed at a meeting of that body on Dec. 11. The meeting was held at the Municipal building, Avenue C and W. 26th St. There were present Mayor Matthew T. Cronin, President Dr. John Cook and Commissioners Macchi, Lisk and Epstein.

When the matter was taken up Secretary John Harding read letters from two factions in the Master Plumbers' Association, in which Morris Newall and John Preston were named for the position of examiner on the board. It is understood that the matter was fully threshed out at a recent meeting of the association. The rival factions could not agree on a man, so each faction sent in the name of the man they had picked.

The Journeymen's Association recommended the name of John Nolan.

In view of the fact that the Masters' Association could not agree on a man, the naming of the board of examiners was laid over to the next meeting. In the meantime an effort will be made by the Masters' Association to decide on one man.

Jersey City Master Plumbers Guests of the Public Service Company.

THE Master Plumbers' Association of Jersey City was the guest of the Public Service in the auditorium of their new building on Sip Ave., Thursday, Dec. 19. About 60 members were welcomed by E. G. Kent, assistant agent, with an address, which was responded to by President A. E. Becker, J. A. Joans, Edw. Moore and J. A. Sprouls, first vice-president of the Master Plumbers' Association, on behalf of the organization. E. J. Donohue, chief engineer of the Public Service Gas Company, also welcomed the members and put himself at the disposal of the guests who wished any information on any subject of engineering on which they might care to be enlightened.

Questions were asked and anwered regarding flue connections, etc., for gas appliances, and W. B. Dole, of the Pittsburgh Water Heater Co., spoke on the construction and operation of gas water heaters, followed by Richard Peck, representing the Electric Weld Gas Water Heater Manufacturers, whose remarks were very interesting to the guests.

J. P. Hanlon, the Public Service's new business manager for New Jersey, followed and his instructive address was warmly welcomed by the guests, most of whom were acquainted with Mr. Hanlon, whose long service in the gas business has made him well known to the master plumbers.

After an instructive and interesting talk on subjects of interest to plumbers and in which all the guests were deeply interested, the members were invited to the basement to witness the demonstrations of modern gas appliances, such as gas forges, soldering furnaces, melting furnaces, gas fired steam boilers, japanning ovens, metal hardening furnaces, ranges, water heaters, etc., which surprised even these up-to-date mechanics in their operation, and many remarks were passed as to the progress made in gas appliances.

Refreshments and cigars were then served and the many complimentary remarks expressed by the guests during their stay proved beyond doubt that their visit was well appreciated and would not be soon forgotten.

Michigan Notes.

R. A. WEIR has moved his plumbing shop from his old stand to the Monette building, at Houghton, Mich., where he will fit up a modern salesroom for plumbing and heating supplies.

Twice visited by fire within a period of 12 hours, the plant of the Central Boiler & Heating Co., owned and operated by Henry Brobst, at Monroe Ave. and Coldbrook St., Grand Rapids, Mich., was damaged to the extent of $10,000 and temporarily wrecked.

Swanson Bros., the Negaunee, Mich., plumbers, have been awarded a contract for the installing of a water heating plant in the home of Anton Miend, an Iron Mountain business man. Swanson Bros. have had several men working at Iron Mountain for some months past, and it is now expected that there will be sufficient work there to keep the crew busy all Winter. The firm has also been awarded the contract for the plumbing in J. M. Perkins' new block.

Edward J. Rinrichs, formerly manager of the plumbing supply department of the Grand Rapids Supply Co., now has an interest in the Michigan Plumbing & Supply Co., of Detroit.

W. J. Klein, manager of the Kansas City branch of the New York Continental Jewell Filtration Co., was a recent visitor to our editorial sanctum. Mr. Klein while in New York attended the annual ball and reception of the Manhattan Master Plumbers' Association. He reports business very good, having a number of large filtration contracts.

Illinois News.

THE Master Plumbers' Association of Chicago has selected the following delegates to represent it at the State convention, to be held at Springfield, Ill., Jan. 28, 29 and 30, 1913: E. J. Benning, E. C. Wagner, W. J. Lang, C. J. Boyd, P. M. Murphy, C. J. Stein, D. J. Hickey, C. A. Dreier, M. L. Mandable, C. J. Herbert, F. J. Dillenberg, C. C. Breyer, C. F. Taffe, W. D. Kelly, P. J. Foley, Jas. Coupland, J. C. Naghton, G. A. Larson, W. F. Bahn, Wm. Redieske, Thos. Beggs, Henry Breyer, L. Clausen, Fred Grosch, Wm. Gawne, John Delshant, Wm. Morris, B. E. Lynam.

Charles Newcomb, of the west country, is making extensive improvements in his fine residence at Farmington, Ill. A force of men, under the direction of Mr. Moran, of Canton, is installing all the most modern plumbing fixtures, and the Electric Light Co. is wiring the house for the lights. When completed it will be one of the model modern country homes.

The third annual reception and ball of the South Side Master Plumbers' Business and Social Club of Chicago will take place at Forum hall on the evening of Friday, Jan. 24, 1913. The floor and entertaining committees are composed of 20 members of the club, and will be under the personal supervision of J. A. Goodbrand, who will be the acting chairman for the evening.

Items from the Coast.

MASTER PLUMBER FRANK Hunt, of Madera, Cal., has engaged as his plumber William M. Parker, a man of large experience and most recently with Fred Barcroft. The new plumbing concern is now setting up benches and equipment in W. T. Duncan's building, the skating rink, but a deal is pending as a result of which Mr. Hunt expects to get possession of what was the Star Theater and later Chamber of Commerce Hall.

George Miller, plumbing contractor of Portersville, Cal., has gone to Eureka, Humboldt County, where he expects to prove up on a timber claim which he took up in the Humboldt woods several years ago. Miller states that there is a large body of fine lumber on his homestead, totaling about 2,500,000 board feet. The quarter promises to be a valuable one.

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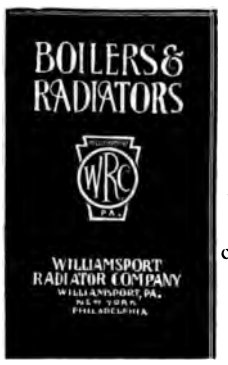
New Catalogues.

WE have just received from the Williamsport Radiator Co. its latest catalogue and price list of boilers, radiators and specialties, which supersedes all of the company's previous lists. This catalogue is pocket size and is profusely illustrated with the various styles of the company's Craig steam and hot-water boilers, Norka radiators and steam specialties.



In presenting to the trade the Craig boilers the Williamsport Radiator Co. is justly proud of their record for general satisfaction in operation, which has extended over a number of years. These boilers are manufactured at the company's own foundry at Williamsport, Pa., and all orders, large or small, will receive strict attention. Much valuable data is contained therein in regard to ratings and estimating the size of boilers and radiation required.

A copy of this interesting and handy catalogue will be mailed to any of our readers by mentioning the MERCHANT PLUMBER AND FITTER and addressing the Williamsport Radiator Co., Williamsport, Pa., or its branches at 99 Beekman St., New York City, and 415 Commonwealth building, Philadelphia, Pa.

New Calendar.

WE are in receipt of a beautiful calendar from the Bullard Specialty Co., of Tiffin, O. The calendar is artistically gotten up in colors, with large half-tone cut of the Bullard Adjustable Roof Flange. Every plumber should have one of these calendars. A postal will bring you one by the next mail.

The Hudson Company Appointed Eastern Selling Agencies for "Allright" Seats.

G. W. PATTERSON, president and treasurer of the G. W. Patterson Co., of Greensboro, N. C., manufacurers of "Allright" closet seats has been spending some time in the Eastern cities looking to the establishment of selling agencies, and after a careful survey, has placed the sale of "Allright" closet seats for the territory north of and including the District of Columbia, in the hands of the Hudson Co., located in Aeolian building, 27 West 42nd St., New York. The Hudson Co. is operated in connection with the Hudson Boiler Mfg. Co., headed by Howard T. Gates, and has offices in Boston at No. 200 Devonshire St., and in Philadelphia at the Builders' Exchange, 18-24 South 7th St.

A vigorous advertising campaign is now going through the mail in the South, which is being handled from Greensboro, N. C., and will be started in the Hudson Co. territory January 1, in addition to the advertising in the columns of trade journals.

Kerosene Furnaces.

KEROSENE furnaces are sold all over the world, and are now used by all the nations. They have been accepted for use by the Army and Navy Boards of different countries, and by all the large telephone companies of the United States, besides being generally adopted by the plumbing and electrical trades.

While kerosene in a plumber's furnace is

cheaper than gasoline it is also safer and is passed by the board of underwriters in every city.

The kerosene furnace shown in the above cut is manufactured by Geo. W. Heiland, 149-151 West 25th St., New York City, who claims that the lower reservoir is all of one piece, and therefor minimizes the chances for leaks, besides the uprights, top plates and fittings are of double thickness, and an extra important feature is added in the funnel for filling, which is cast right into the reservoir top, preventing the oil from being spilled all over the floor.

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STORER F. CRAFTS, General Manager

OBITUARY

Charles P. Malone, Oswego, N. Y.

One of Oswego's most prominent citizens, Charles P. Malone, died in New York City Dec. 16 as a result of an operation which he was forced to undergo. Mr. Malone was in his 40th year.

For the past two years Mr. Malone held the position of inspector in the Examining Board of Plumbers. He was appointed by former Mayor John Fitzgibbons.

Mr. Malone for several years conducted a plumbing shop in E. 1st St. He was a Democrat. Besides his wife, he is survived by one son, Joseph Malone; one sister, Miss Mary Malone, of this city, and one brother, Joseph Malone, of New York.

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SALESMAN WANTED for each State and Local District. One having experience and acquaintance with plumbing trade to take out excellent line specialties and fittings. Good offer to live competent man. Address "HUSTLER," care Merchant Plumber and Fitter, 200 Fifth Ave., New York City.

YOUNG MAN, 28, with 13 years' experience in plumbing and heating, has master plumber's license in New York; can estimate, lay out and superintend work; valuable man for architect or construction company; best references. Address "W. M.," care Merchant Plumber and Fitter Pub. Co., 200 Fifth Ave., New York.

REPUTABLE and successful manufacturer's agent desires an additional soil pipe and fittings, stop cock, gate valves and pottery account. Address "J. L. P.," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York City.

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NEW YORK, JANUARY 10, 1913.

By the Merchant Plumber and Fitter Publishing Co.

RICHARD J. WELCH, LOWELL, MASS.
Director of the National Association of Master Plumbers

Sanitation—Some of the Things We Must Face

Paper Read Before the Duluth Architectural Club, December 2, 1912, by D. G. McLeod, of Crane & Ordway Co.

THE subject given me to discuss is one as broad as the country and as long as the ages past. It is one that concerns itself indissolubly with the evolution of man from the savage state and cannot be ignored without causing loss of human life.

We are just beginning to realize the possibilities of scientific sanitation. The starting point of the whole subject is the use of pure water. In times gone by when man lived a simple life, pure mountain streams furnished the water for drinking and bathing. Waste matter was taken care of by nature. As civilization followed, pure water became more difficult to obtain. Streams became contaminated, shallow wells were dangerous—only deep wells drilled to water bearing sand or subterranean lakes below an impervious stratum of rock or clay furnished water that was beyond reproach.

The United States is well in advance of foreign countries in sanitary progress. "The Plague" in many foreign countries, particularly such congested districts as China, can be directly traceable to the absence of any sort of sanitary appliance, even in the homes of the wealthy. The cholera now sweeping down more combatants of both armies in the Turkish war than all the destruction of shrapnel and Mauser, can be directly traced to the absence and ignorance of sanitary methods in the Near East.

As an example of what can be done in a pestilence-ridden and fever-stricken country, we have only to look to our own Panama Canal project—the advantages of modern sanitation fairly make our eyes bulge out. What can be done there, with such odds against those responsible, can surely be done anywhere in our own country.

With the increase of population in cities something had to be done to take care of the waste matter—hence the absolute need of adequate sewerage systems, and connections from each habitation.

Such compulsory connections to sewerage systems has recently been enacted in Baltimore. In spite of spirited protests from many conservatives, the result is deemed well worth the effort.

If we are to secure the maximum benefit from the money expended for such sewerage systems, we should all work for the passage of laws making the use of dug or shallow wells within cities prohibitive, and compelling sewage connection from all homes tributary to sewers. An astonishing reduction of typhoid, malaria and other diseases attributable to bad sanitation, will result.

On account of the building up of our outlying unsewered districts we are confronted by the problem of proper sewage disposal, as the cesspool has proven to be an unsatisfactory mode, as it is a menace to health. The septic tank is probably the only solution at the present time. This system works out very well.

I have taken the following description of this system from some recent printed matter that we have gotten out and which is very interesting reading.

The sewage on entering the tank remains until it fills the tank and the weir box to a level with the overflow from curved tile outlets. In twenty-four hours, or a little over, after entering the tank, a scum will have formed on the surface, an inch or more in thickness, consisting of a solid mass of filth bacteria, which prey upon the poisonous matter and the solids contained in the sewage, constantly fighting among themselves and destroying each other, until nothing is left but about two per cent. poisonous matter in the water as it escapes, and which is at once eliminated by exposure to the atmosphere.

Light and air are fatal to bacteria, hence the necessity of keeping them in a dark airtight place that they may accomplish their work. For this reason the tank must be air tight. Again, to do their work effectively they must be left in perfect quiet—hence the inlet and outlet are submerged below the surface in order that from inflow and outflow as little current as possible may result, and this quiet is further assured by means of weir boxes.

The tank should be large enough to hold all of the sewage that is very likely to run into it within a period of twenty-four or thirty-six hours. For a private residence this would rarely need be larger than three feet inside, six feet deep, and eight to ten feet long.

In these districts, every effort should be made to secure a sewer system, and the further use of septic tanks and other systems of sewage disposal should be prohibited after the sewer system has been installed.

The modern residence, the flat building, the skyscraper, the more pretentious hotels and public buildings, have all to a more or less extent been provided with sanitary plumbing.

But what of the factory building—the place of all others where sanitary conveniences will be most desirable—where their absence will tend to spread disease, and where without doubt less attention is given to its prevention?

And what—and how—are we to prevent the makeshift "sanitary" (call them that if you will) fixtures of the average workshop or factory? One little lavatory to a hundred people—one closet to two hundred workers—can disease be spread any easier?

We need some means whereby the workman in an occupation in which he becomes very dirty, can have adequate facilities for cleaning up for lunch and before leaving work for the day. If it is necessary for us to design a special fixture that will be a combination of a lavatory and a shower bath, let us do so. More attention to the sanitation of the factory and the shop, where the heads of families must spend the majority of their waking hours, will mean a higher civilization for all.

In a large manufacturing plant employing about six thousand men an account was kept for a year of the time saved by substituting drinking fountains for water coolers and cups. A saving of 400 hours for the force as a whole was effected, or enough to run a small sized shop. The installation of drinking fountains seems to be well worth consideration from a financial as well as a sanitary viewpoint.

The importance of really *good* plumbing is too many times overlooked by the purchaser. It happens time and time again—you have seen it often—that the owner's ideas of the building require handsome architectural effects, expensive finish and that the plumbing and heating is cheapened to make up for the expense elsewhere.

What is needed is more education of the importance of *good* plumbing—education of the public, of the plumber, of the architect, of the supply man and of the manufacturer—we all need it, and we can all help to educate.

Cheapness in a building can be attained in many ways—the slighting of many parts of the work may mean only a loss in appearance. Cheapening a plumbing installation means that the owner secures less value in the working parts—the fixtures then require constant repair—the health of those using the plumbing may be vitally affected—and the cost of putting the plumbing installation in first-class condition again would be enormous. Much of the cause of final dissatisfaction among owners can be traced to the practice of placing contracts with the lowest bidder, who is often irresponsible and whose failure to deliver a sanitary job is a detriment to the trade. We must educate the owners to demand responsible plumbing and heating contractors on their work, even if the immediate cost seems higher.

The dangers arising from sewer gas should be agitated by this club and brought to the attention of the people of Duluth. The proper and sanitary trapping of every plumbing fixture is principally the safeguard against sewer gas in the household, and the venting of all drains must be done to prevent this trouble. We have right

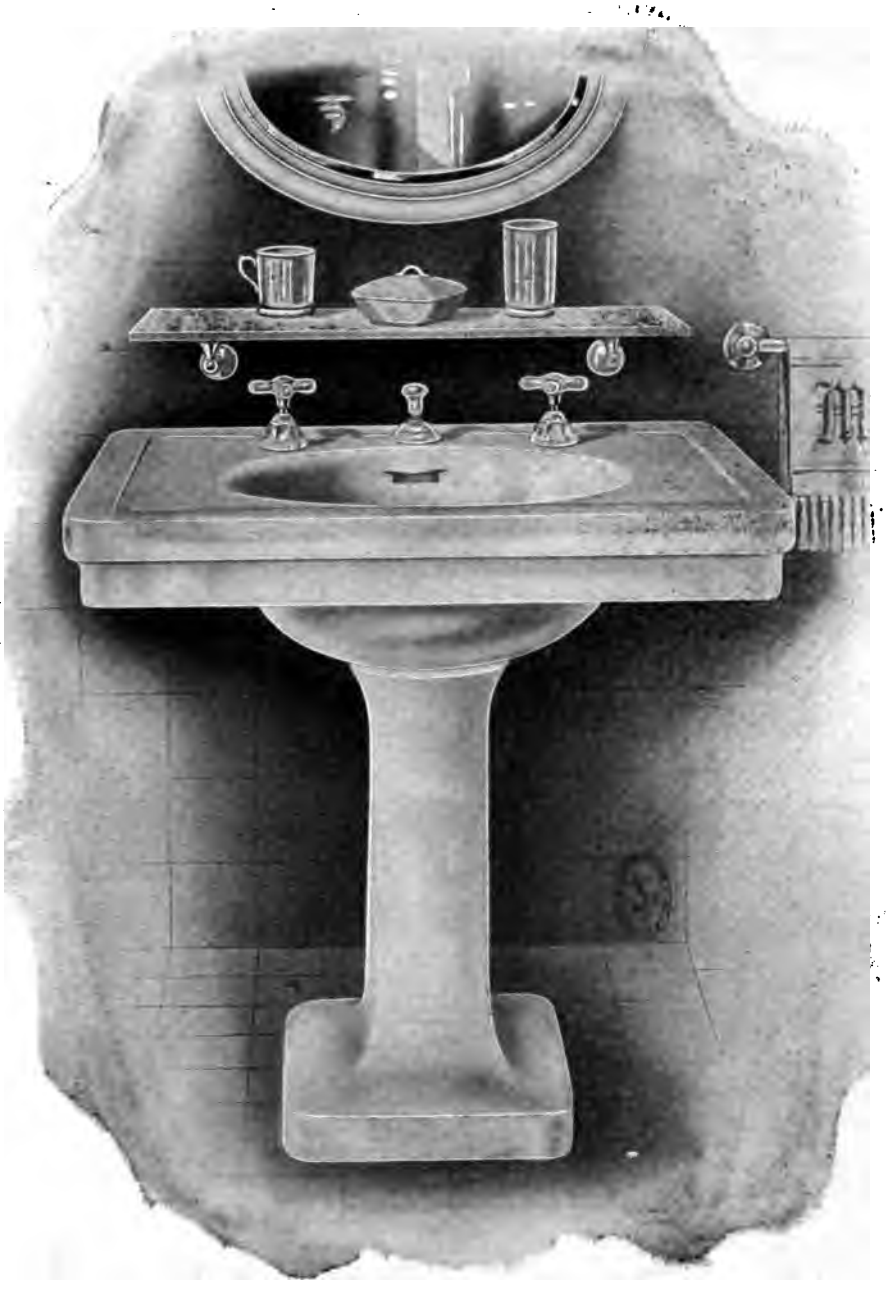

Plate 2000

No Metal To Catch Dirt
No Metal To Keep Clean

Thomas Maddock's Sons Co.

Oldest Sanitary Potters in America

Established 1859 **TRENTON, N. J., U. S. A.**

Architectural Catalogue maintained in the Building Trade Catalogues. (A. B. C. system—Section 35-B; Catalogue 5)

now an opportunity to express ourselves in regard to this matter, in a way that will be effective.

The new plumbing code that is shortly to become a part of our City ordinances should by all means include an arbitrary law covering the proper trapping and venting of all plumbing fixtures, and the use of Extra Heavy soil pipe, that our households may be proof against this menace.

You will find that nearly all people are under the impression that there is a certain odor to sewer gas and that in the event of a leaky plumbing system the presence of sewer gas would be easily detected. This, however, is not the case, as genuine sewer gas is colorless and odorless. It may lurk in the home or the office building, and the occupants would not be aware of its presence. It is the greatest menace there is to health. There is only one way to overcome this evil and that is by the correct installation of the plumbing system, with the use of the proper materials.

Right here in our city we are using what is known as "Standard" soil pipe for our drainage and sewer systems. This pipe is too thin. Although the leading manufacturers of soil pipe and fittings test all their material before it leaves the factory, this does not prevent the material from becoming cracked in transit, or in handling from place to place. A small defect will go unnoticed and a leaky soil pipe cannot be detected. This light pipe has no factor of safety, and, therefore, cannot perform the function that it is intended for. Soil pipe will often crack after installation due to the contraction and expansion or the settling of the building. There are some manufacturers that do not use the proper care in the manufacture of their product, the materials they use are not materials that go to make up the best soil pipe or fitting.

The use of "standard" soil pipe and fittings should not be permitted where soil pipe is used. "Extra heavy" pipe and fittings should be specified on all work.

All those who are interested in the progress of sanitation are advocating the use of the "Durham System of Drainage," which is a big improvement over the soil pipe system both from a sanitary and a practical point of view.

The materials that enter into the construction of the Durham system, are principally Merchant wrought iron galvanized pipe, which is the same grade of pipe that is used for steam work. The pipe mill test on this pipe ranges from 600 to 1,000 lbs., according to the size. These tests are made at the mill simply to prove up any defects in the weld or other portions of the pipe. The fittings are of heavy cast iron and are made with a shoulder, and are the same size inside diameter as the pipe. The pipe screws in up to the shoulder, making a continuous passage, leaving no pockets for the solid matter to lodge in, thus preventing the choking up of the pipe.

The Durham system is all screw connections, whereas in the soil pipe system you have only temporary calked or wiped lead joints. The possibility of leakage is brought down to a minimum. After the installation of a Durham system is made and the necessary test applied you can rest assured that this system will give complete satisfaction in every detail.

By installing the Durham system it brings into use the screw connection for the water closet and all other fixtures, which is a great help to the furtherance of proper sanitation.

Ninety-five per cent. or better of all water closets in our city are connected to the soil pipe by what is called the "putty joint." You will agree with me when I say that it is, to say the least, criminal to permit the use of such a joint.

Soon after the installation of a "putty joint" the putty will lose its plasticity and become hardened and will crack, due to the settling of the building or from the jarring of the closet—hence there is an opening for sewer gas to escape into the building.

Where it is absolutely necessary to economize on the plumbing a combination soil pipe and Durham system may be used. The water closet and all fixtures to be connected by means of a screw connection to Durham fittings and wasted through proper size galvanized pipe to the main stack, which would be of soil pipe. This system would permit the use of soil pipe at all points excepting the connections heretofore mentioned.

Great care should be taken in the proper venting of all fixtures. As an example, we can take up the question of the proper trap for a lavatory waste. A good, practical anti-syphon trap should be provided.

Where a trap with vent is used a ground joint should by all means be required on the vent, as it is just as criminal to use a trap with a gasket joint on the vent as it is to use the "putty joint" on the water closet. The same care should be taken on every installation.

In discussing the sanitation of public buildings there should be included the railway stations and other waiting rooms of the like. Perhaps in no other class of public places is there more abuse of sanitary conveniences—certainly there is more need of care in planning adequate toilet facilities in such buildings. Education of the public will do much toward bettering these places—radical action by municipal authorities and boards of health may be necessary to alleviate some of the trouble.

Sanitation was for a long time considered to cover only the delivery of water and the removal of sewage, but of late years the subject of ventilation is looked upon as a most important phase of sanitation. Proper ventilation of public as well as private buildings will in the future be given greater attention—the spread of disease through impure air is just as prevalent as through bad water and can just as readily be circumvented by proper scientific effort. Air purifiers and washers will in time become common in all public buildings or other places where people congregate—they are now a part of the equipment of many of the best hotels and theatres.

Some agitation has recently been started for a national publicity bureau that would have for its object the dissemination of information to the public concerning sanitation, its benefits, its abuses, and the needs for its advancement. The idea would be to furnish to the newspapers and magazines educative articles, directing public attention to the underlying principles of sanitary science. This would indeed be interesting work—it would benefit the architect, the engineer, the plumber, the fitter, and, most of all, the public itself.

In the meantime we can, right here in Duluth, put forth our efforts toward better sanitation. If the desire to break into print seizes us we can find an outlet through the local papers for constructive (not destructive) educational work. We can all become active forces in promoting the gospel of sanitation if we will. Shall we do it?

A System for Overhead Cost.

PRESIDENT C. K. WILL, Lancaster, Pa., who was elected to the Pennsylvania State presidency last April, has compiled for the master plumbers of the central association of his State an overhead cost list of items which enter into the plumbing industry. Mr. Will, and we ourselves, agree that it will be of interest to those who have not yet compiled or constructed a system providing for overhead cost in the conduct of our business.

Mr. Will's valuable preparation follows:

WEEK OF.....191..

Salary of Proprietor..... —— —
" " Bookkeeper or Stenographer.. —— —
" " Driver or Shop Boy..... —— —
Taxes or Rent of Shop, Warehouse, Yard or Stable ..... —— —
Heat..... Light..... Power..... —— —
Insurance—Accident, Fire, Liability, Plate Glass ..... —— —
Interest on Capital Invested at 4 per cent. —— —
Interest on Borrowed Money..... —— —
Delivery, Horse, Wagon.. Auto Expense.. —— —
Postage..... Stationery..... Printing..... —— —
Freight..... Express..... Boxing..... —— —
Telephone... Telegraph... Legal Exp.... —— —
Candles..... Tallow..... Nails..... —— —
Screws..... Putty..... Wire, etc..... —— —
Oakum..... Pipe Joint Compound..... Paints ..... —— —
Gasoline..... Oils..... Kerosene..... —— —
Advertising..... Charity..... Gifts..... —— —
Allowance to Customers' Unjust Claims... —— —
Bad Debts..... Collections..... Asso. Dues ..... —— —
Car Fares... Store and Office Supplies... —— —
Damaged Goods and Replacing, Waste Material ..... —— —
Incidentals, Depreciation of Stock and Tools ..... —— —
Repairs to Building and Plant..... —— —
Time Lost by Men in Shop or on Job.... —— —
Estimating or Overtime in Office..... —— —
Go-Over Jobs ..... —— —
..... —— —
..... —— —

A Generous Distribution.

THE National Radiator Co., of Johnstown, Pa., made a distribution of bonuses, amounting to $1,608, to about 50 employees. The company has made such a distribution for each of the past five years, giving employes a certain percentage of the yearly wages, according to the time they have been in the company's employ.

The new firm of Baker & Ross, at Leroy, Pa., has bought the plumbing and pump business of Heaton & Heaton.

Approved by the Philadelphia Board of Health

THE IMPROVED "I X L"

Anti = Freezing, Low Down Combination

(Plate 4 I X L Patent Applied for.) TRADE MARK I X L

The "I X L" Anti-Freezing Closet can be installed very quickly, it is simple, not complicated, nothing inside of tank but the stand pipe, gives no trouble, is cheaper, infringes no patents. Can as much be said for others?

THAT'S ALL

A Few of Our Specialties:

"I X L" Sewage Ejectors. Cellar Drainers. Water Lifts. Water Systems. Anti-Freezing Closets. Belt or Electric Driven Air Compressors. Beer Pumps. Factory or Mill Closets. Seat Action Closets High and Low Down. Pull Combinations High and Low Down. Automatic Syphon Tanks 1¼ to 2½ Syphon. Urinal Sprays. Compound Air and Water Regulators. High Tank Anti-Freezing Combinations. Air and Water Regulators. Hopper Valves (Spring or Weight). Pitless Hopper Valves. Compound Lever Ball Cocks. Valve Rests. Air Chambers.

We guarantee them in every respect. Send for catalogue.

"I X L" PUMP & MANUFACTURING CO.

Patentees and Makers

957=59-61 N. Ninth St., and 958=60=62 N. Darien St.

PHILADELPHIA, PA.

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Twenty-fourth Paper

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RULE 103. The discharge from any fixture must not pass through more than one trap before reaching the house drain.

The sectional elevation on Plate 107 shows the basement, first and second floors of a building with lavatory and water-closet located on the two latter floors respectively.

The watercloset trap is, of course, an integral part of the fixture, and there is no other trap on soil or drain line for the discharge from this fixture to pass through before it reaches the main house trap at front wall of building, shown on the lower left-hand corner of illustration, Plate 107.

Neither is there any intervening trap on soil or drain line between the lavatory trap, as indicated on the first floor, and the main house trap, located as stated above.

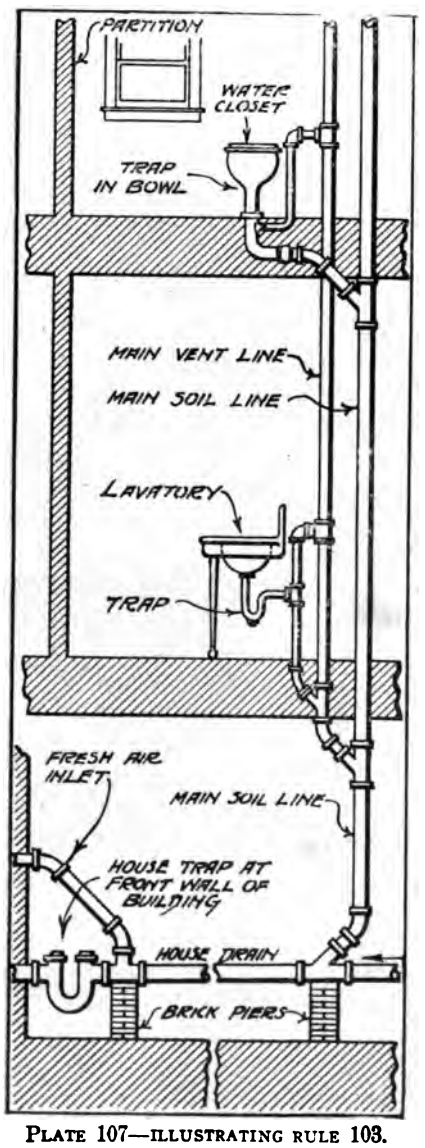


PLATE 107—ILLUSTRATING RULE 103.

Both these cases illustrate the meaning of Rule 103 and apply to any and every fixture directly connected to the plumbing system.

To cite a case wherein there might be a chance to find more than one trap for the contents of any fixture to pass through before entering the main house trap, we shall assume that the main house drain of a building—preferably one which has been constructed some years ago and alterations are required—extends only half way through the basement or cellar, and then the main waste or soil perpendicular line rises straight up through the various floors and through the roof of the building; this, of course, is correct.

Now, at the rear of the building we have a roof leader running down the inside of rear wall, and from the base of this line we branch over through cellar with a leader drain and connect with main house drain, which begins at center of cellar or basement, as stated above.

Of course, on this branch leader drain has been installed a leader trap as required.

An inside leader pipe cannot be of sheet metal, but must be made of cast iron, wrought iron or steel; and as alterations are necessary—say, an additional lavatory or watercloset, which is to be located in such a position that the inside leader pipe runs up on a line with the fixture.

If we are making these alterations on our own volition, and think it so trivial a matter that it is unnecessary to inform the building department, about the first thing some would do is to cut into the inside leader from roof for the discharge of the new fixture, simply because it looked like a soil pipe "because made of the same material and because we did not thoroughly examine the drainage system to find out just what work the pipe performed. Even a careless plumber would be fooled.

Consequently, if we made this connection (using an inside roof leader for a soil or waste pipe) we would not only be violating Rule 64 but also this Rule 103, as the leader trap on the leader drain in basement would be an intervening trap, allowing the discharge from the trap of the newly installed fixture to pass through the leader trap before entering the main house trap at front wall of building. This extra or middle trap, being sealed most or nearly all of the time, would prevent a circulation of fresh air from the fresh-air inlet through the house drain and perpendicular soil or waste line (and leader). This kind of inferior work soon becomes known to the inspectors of plumbing, and the owner, though he was not aware of his mistake, is held liable—he pays the freight. Always bear in mind the fact that when you (owner) need alterations, even the smallest sort, call in a reliable plumber and have him examine your drainage system in your presence; he will point out the good and bad points, and you are not being imposed upon. This is the fact.

Rule 104. All traps must be well supported and set true with respect to their water levels.

Plate 108 shows the incorrect and correct way of connecting traps to lavatories. The upper sketch shows the trap bent or "jammed" either on account of the off-center of the branch vent and waste to the left of the sketch or a poorly constructed

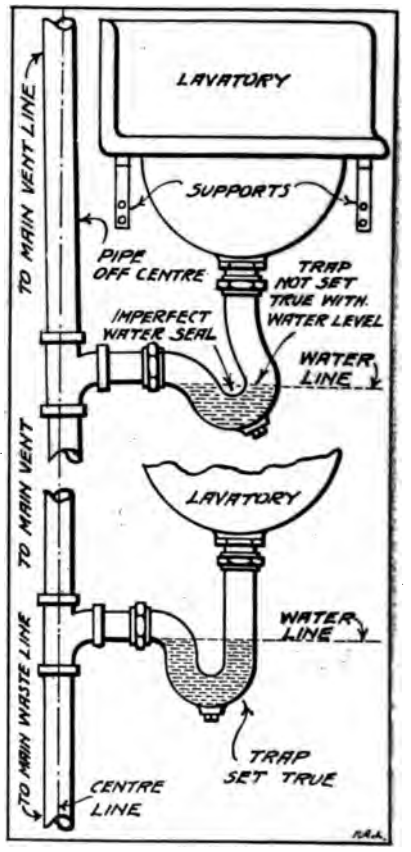


PLATE 108—ILLUSTRATING RULE 104.

trap. Notice the imperfect water seal. It would not require many hours for the water to evaporate and leave a smooth, clear opening for the sewer gas to make its entrance into the room.

Take an office, for instance, with its lavatory trap not set true with respect to its water level, and it is a particularly well-heated one, closed Saturday at noon and again opened for business the following Monday at 9 A. M. Before the opening hour, with the help of the heat in the room, there would be no water in the trap at all. What an "invigorating" atmosphere to greet one on entering his office to begin the week's business.

HITCH YOUR WAGON TO THE STAR

CHINA VITREOUS T P Co. TRADE MARK

BECAUSE

YOU GET WHAT YOU PAY FOR

AFTER all, we pay for what we get—no more, no less. That may sound puzzling, perhaps, but the sooner we look the truth in the face the better off we'll all be, and the fewer kicks we will have when things don't turn out as expected.

Mr. Blank, we'll say, wants to buy a water closet. After deciding on whether it will be a syphon jet, a reverse trap or straight syphon action closet he goes into the price. Always the price! Mr. Reputable Manufacturer's line is presented and figures produced. "But," protests Mr. Blank, "I can't pay that much money; Mr. Scallywag down the street offered to sell me the same kind of a closet for $3.00 less." "Made by the same firm?" asks the dealer. "Well, no, but Mr. Scallywag says it's just the same in action and appearance." "We can give you the same thing," returns the dealer, "only we won't guarantee it, and frankly warn you that the difference is there even if you can't see it. To the inexperienced eye clay materials are deceptive. Here, John," the dealer calls to an assistant, "bring up one of those unguaranteed closets. I want to compare the two fixtures for Mr. Blank's benefit." The closet arrives and is placed alongside of the reputable manufacturer's. "Do you see," explained the dealer, "the difference in color between these two fixtures? That is caused by the difference in clay material and the firing. The higher a piece of pottery is fired in the kiln the harder and consequently more durable, and will outlast the cheaper piece. Now I'll turn the pieces so that the unglazed portion of the foot is exposed. I guess you see the difference in the clays. The one made by the reputable manufacturer is pure white and a very close body. The unguaranteed piece is brownish in color, showing how glaze can cover a multitude of sins.

"Mr. Blank, you can take your pick, but remember, *you get just what you pay for*. If you want to save yourself any future trouble with your closet, it will pay you to spend three dollars more today. It may mean your saving much more than that some time later. The reliable manufacturer puts three dollars' worth more of material, time and labor in the closet he produces. He could just as easily put out a closet to sell for three dollars less if he wanted to, but it would look just like your unguaranteed piece. You must remember that in any business a man must get a certain percentage of profit for his labor, otherwise he might just as well shut down. Mr. Reputable Manufacturer gets no greater profit out of his good ware than this unreliable maker. I prefer to handle the better goods because there are no come-backs on me. If you go to a grocer whose prices are below the average you must look for short weight and trickery. And at that you get what you pay for, for some day you'll wake up and find you'll get the same amount of goods for the same money from a reliable dealer. Perhaps in a larger package at a slightly increased price."

"Surely am much obliged to you," says Mr. Blank, "for putting the matter up so clearly; I guess you know what I want better than I do myself. I had experience with the 'Cheap-John' grocer and know what you say is true. We all have to make a living and some men try novel methods of disposing their stock—like the grocers you mentioned. But as you say, we all find out that behind every bargain offer there's a reason. Good day."

Are you looking for the kind of goods that last—that will prove up to your customers' expectations? If you are, make sure your jobber gives you ware made by

The Trenton Potteries Company, Trenton, New Jersey

The World's Largest Manufacturers of Superior Quality Sanitary Pottery

No, this should not be; and only a careless man would make this kind of a connection.

At the bottom of Plate 108 we show the trap so that we get a perfect water seal or seal; the vent and waste pipe to the left is shown straight, as it should be.

Plate 109 at top shows a leader drain with its trap at left-hand side. The grade

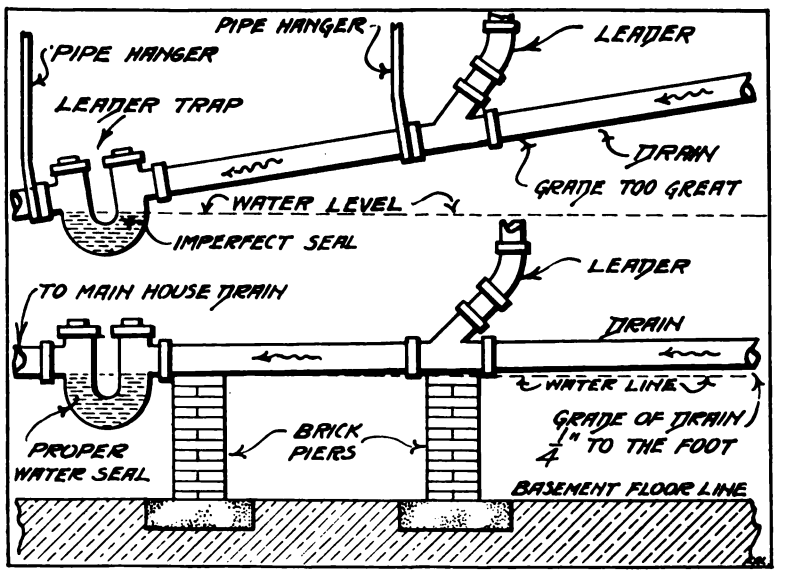


PLATE 109—ILLUSTRATING RULE 104.

of drain is too great with respect to the water level in the trap; it is readily seen that the trap has an imperfect seal.

If possible, keep the pitch or grade as shown on lower sketch, or if we must keep to the greater incline of the leader drain insert a fitting to the right of the leader trap so that we get a perfect water seal. The illustrations Plates 108 and 109 both apply to Rule 104.

Effects of Grease on Drainage System.

By HAROLD L. ALT.

Paper read at annual meeting of American Society of Inspectors of Plumbing and Sanitary Engineers at St. Louis, Mo., June 4, 5 and 6.

ONE of the most troublesome problems of the present day plumber is to prevent the stopping up of his waste and drain pipes through the accumulation of household grease and lint caused by the adhesive qualities of the grease when solidifying, and the tensile strength of the lint and other waste material which is incorporated in it during this hardening process. Danger of stoppage from this cause is present until the greasy waste water reaches a pipe in which the flow is strong enough, and the current swift enough to clear itself by the scouring action of the flowing water and the grinding of the sand and other sediment it may be carrying along in suspension.

The size of the pipe seems to be of much less importance in this particular than the quantity and swiftness of the flow; that is to say, a large pipe with a small stream of water running through it for an extended and continuous period is much more likely to allow the grease to accumulate by attaching itself along the sides and invert than perhaps a smaller pipe where the flow would be more rapid and the force of the current consequently much greater.

The modern tendency is manifestly toward prevention rather than cure, as is clearly shown by the increasing attention being given throughout the plumbing and sanitary world to the processes and devices for separating the household greases from the waste water. There is now being used more than ever on private houses of the better class the grease trap located out in the yard in a special manhole with a vent run back to the house and then up through the roof.

USE OF GREASE TRAP.

There is also being used to an encouraging extent the grease collecting trap with water-cooled chambers where the cold-water supply for the entire building is carried through the water jacket; and it would seem that this is really the true and proper way of handling this end of the matter, since any grease which is of too much of an oily nature to solidity when brought into contact with the water-cooled walls of the trap is quite unlikely to become thick enough to cause serious trouble while passing through the rest of the drainage system.

OBJECTIONS TO WATER-COOLED TRAP.

The chief objection to the water-cooled grease collecting trap is in its comparatively large size and bulky appearance when compared to the ordinary neat half S trap, and this is evident when installed in its usual place in the kitchen under the sink. Besides this, owing to its collecting practically all of the grease it is necessary to clean it out much more frequently than when the larger part of the grease is carried off with the waste water as is the case in the ordinary trap.

PREVENTION RATHER THAN CURE.

With the final elimination of grease from all waste water, which, however, is bound to come in time, it will doubtless be found, especially in modern plumbing installations where the proper drainage fittings have been used that the troubles caused by lint, hair and other fibrous foreign materials will be greatly lessened and possibly will disappear altogether since these materials will then have no sticky adhesive with which to become attached to the smooth interior water ways of the modern drainage pipe system.

Let us, by all means then, bend our energies and efforts toward advocating the keeping out of the grease from our pipe system altogether, rather than toward performing the practically always unsatisfactory task of trying to care for it after it has been deposited there. Prevention is better than cure at all times, and the saying was never more aptly applied than it is here.

Yuletide Greetings from Denver to Chicago.

CHRISTMAS greeting by telephone, transmitted 1,008 miles, was received and acknowledged in Denver by a two-year-old child.

Carl J. Stein, a prominent Chicago master plumber and ex-president of the Illinois State association, who lives in Oak Park, a suburb of the lake metropolis, put in a call for his brother, James E. Stein, Denver manager of a detective agency, the object being to exchange the compliments of the season.

The Denver long distance operator called Mr. Stein's residence to inquire if the party was "ready to talk." The operator then made the connection, putting Harrison 2,366, Chicago exchange, in touch with York 3,928, Denver.

Mr. Stein, of Oak Park, Ill., shouted the customary "Hello." He was surprised when a child's voice answered.

"Dis is Dimmy," assured the voice at the Denver end of the wire, "who is oo?"

Divining that the voice might be his little nephew, the Chicago Stein said:

"Hello, Jimmy, this is Uncle Carl at Chicago. Tell your mamma and papa I wish them a merry Christmas."

Quick as a flash the youngster replied: "Hello, Uncle Carlie, Merry Twismas."

By this time "Jimmy's" parents had reached the telephone and Yuletide greetings were exchanged between the two families more than a thousand miles apart.

"Little 'Jimmy' often goes to the telephone when his father calls up from the office," said Mrs. Stein, in relating the unusual incident, "but to have him answer a call coming more than a thousand miles away is doubtless the record in the history of telephones."

Empire Radiator Co. Capitalized at One Million Dollars.

BUFFALO, N. Y., men are at the head of a $1,000,000 project. Word was received there that the Empire Radiator Co. had filed a certificate of incorporation at Albany with William S. Wicks, Charles J. Ellis and Edward B. Green, all of Buffalo, as the directors. The main offices of the enterprise, which will manufacture and deal generally in auto radiators, will be located in that city. The financiers of the venture are well-known local business and professional men.

The CONTINENTAL FILTER

The standard for high-class residence installation for the past quarter century

BECAUSE

it combines these important features:

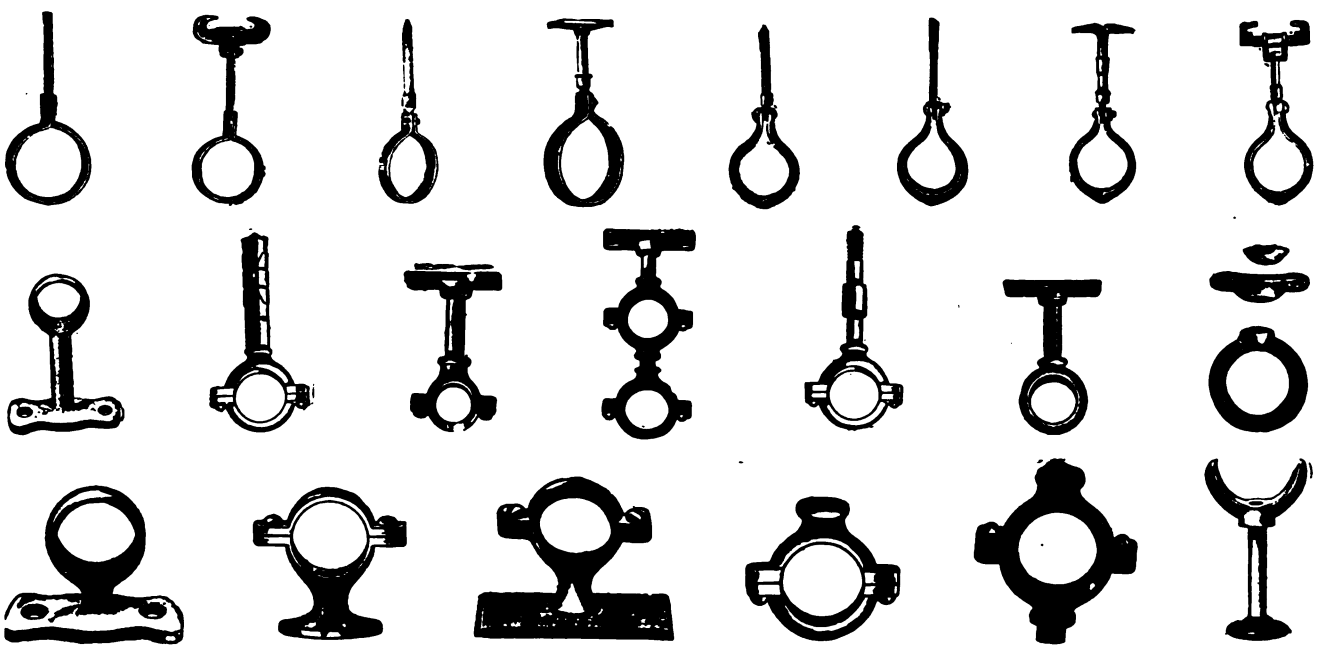
1. DOUBLE FILTRATION
   First through sand, then through bone-charcoal.
2. SLOW FILTRATION
   Obtained by a large filtering area.
3. THOROUGH FILTRATION
   Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. SIMPLICITY OF OPERATION
   Each cylinder controlled by a single valve, making no expert care necessary.
5. AUTOMATIC AERATING DEVICE
   By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.

The New York Continental Jewell Filtration Co.

15 BROAD STREET, NEW YORK

For Price on These Hangers and Other Specialties

Write now to **FEE & MASON,** **81 Beekman Street NEW YORK**



The main waste then extends down, with an elbow at its base connected directly to a running trap.

This method is indeed incorrect and unsanitary and not permitted. Traps located at this part of a plumbing or drainage system would prevent a circulation of any air whatsoever up through the waste and vent line from the fresh air inlet in street at building line.

This kind of a trap—a running trap with two hand-hole cleanouts—is the correct design of trap to use on a house drain, but if we do not locate it in its proper position it is practically useless so far as allowing circulation through the entire system is concerned.

Whether the perpendicular pipes are soil, waste, leader or for other drains, they must not have at their base a drop of any kind. Of course, leaders and area drains must be trapped before discharging into the house drain, but they must be placed on the leader drain far away from the base of the leader upright line and far enough from grade and walls so as to not only prevent the freezing of the contents but also to make then readily accessible for cleaning when desired.

Reading, Pa., Needs a Plumbing Inspector.

THE Mayor of Reading, Pa., in his annual address, comes directly to the point when he says:

"It is, apparently, an impossibility to secure the services of a man with the proper requisites to act as assistant plumbing inspector at the inadequate salary offered. A continued vacancy in this office will act as a detriment and needless expense to building and repair work throughout the city. The suggestions of John D. Corbit, plumbing inspector, should receive prompt attention."

Officers of the N. O. Nelson Co., of Houston, Tex.

AT the general offices in Houston, Tex., the first annual election of stockholders of the N. O. Nelson Co. was held, at which N. O. Nelson, S. L. Hillebert, J. A. Senkosky, C. W. Furman and H. S. Filson were elected directors for the ensuing year. At the first annual meeting of directors of the company, which followed immediately after the stockholders' meeting, N. O. Nelson was elected president; S. L. Hillebert, vice-president, and C. W .Furman, secretary and treasurer of the company for the ensuing year. Mr. Furman was made general manager.

N. O. Nelson Co. has leased a large part of six floors of the Hermann building, a part of which is now occupied by the Tel-Electric Co. It will engage in the business of supplying at wholesale on a very large scale all kinds of plumbing and steamfitting supplies and mill supplies and equipment. Already the immense floor space held by it under lease has been well filled with a very large stock, and some of its larger orders have not yet been received. Negotiations are now under way for additional storeroom facilities.

N. O. Nelson, the newly elected president of the company, is a prominent citizen of New Orleans. He is president of the N. O. Nelson Mfg. Co., one of the largest wholesale houses dealing in plumbers' supplies in the United States. N. O. Nelson Mfg. Co. occupies perhaps the largest storehouse exclusively for the purposes of its business in the United States at the corner of 10th and Chestnut Sts., in the city of St. Louis. Mr. Nelson is also president of N. O. Nelson Marble Co., one of the largest marble dealers in the United States. This company is just now completing a very large contract in which all of the marble for the Rice Hotel has been supplied and put in place.

S. L. Hillebert, vice-president of the company, is general sales manager for N. O. Nelson Mfg. Co. and resides in St. Louis. He has for some years been well and favorably known among the large dealers in his line.

H. S. Filson, one of the directors of the new company, resides in Houston. He is general manager of the Gilmer Lumber Co., operating large saw mills in Jasper and Sabine Counties, and is one of the well-known lumbermen of that section.

C. W. Furman, secretary and treasurer and general manager of N. O. Nelson Co., has for many years been the traveling representative of N. O. Nelson Mfg. Co. in Texas. There is perhaps no man in Texas more popular or more highly esteemed among the dealers in plumbers' supplies than Mr. Furman.

N. O. Nelson Mfg. Co. has built up an enviable reputation with the trade in Texas, and it may be expected that the new company with its headquarters at Houston will be in high favor with the trade and will be handsomely patronized from the first.

Troy, N. Y., Local Elect Officers.

THE Master Plumbers, Steam and Gasfitters' Association of Troy and vicinity has elected the following officers: President, John F. Knaupp; vice-president, William H. Kennedy; secretary, George T. Morris; treasurer, Arthur A. Dunn; directors, James Kennedy, Martin Mulligan, Julius Pfau, Joseph B. Delaney.

Specifications for Plumbing, Fixtures, Etc.

Prepared by the Board on Uniform Plumbing Specifications for the Treasury, War and Navy Departments

Planished Copper Sink (Plate No. 40).

SINK No. 24 to have wooden drain board and back and to be of dimensions shown.

Sink to be rectangular with rounded corners. To be of 16-ounce planished copper, with flange at top and reinforcement at bottom.

Sink to be enclosed in a box made of soft, well-seasoned wood, free from knots; the finish of the board in front of the box to match the finish of woodwork in room

Drain Board and Back.—Drain board and back to be of well-seasoned ash, free from knots, of finished thickness shown. The drain board to be well secured to box and to wall; the back to be well secured to the drain board and wall. The drain board to be top grooved and to drain to the sink.

Trap, Waste and Overflow.—Sink to have on waste a finished brass nickel plated strainer and finished cast brass nickel plated 1½-inch non-siphoning trap. Wall or floor outlet to be furnished to suit conditions. Sink to have connected overflow as shown.

Nipple and pipe connections between trap and concealed piping to be standard annealed, drawn brass, full iron pipe size, with screw-threaded joints and provided with finished and nickel plated cast brass wall or floor plate.

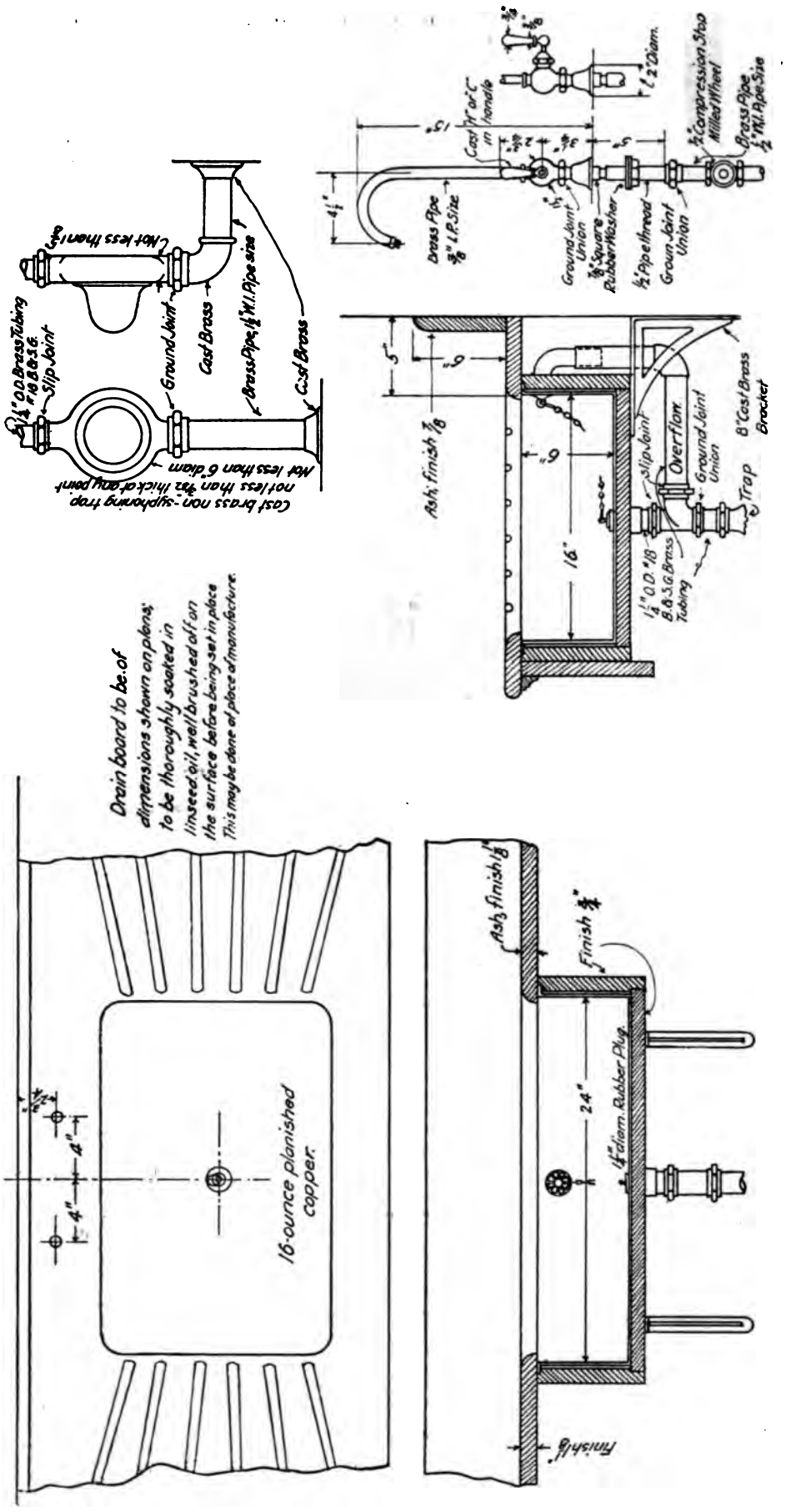
Plug and Chain and Chain Stay.—Each sink to have a finished cast brass nickel plated chain and chain stay at overflow set opposite center of sink. The rings attaching plug and chain stay to chain are to be well soldered.

Brackets.—Sink to be supported on cast brass brackets as shown. Brackets to be secured to masonry walls with ¼-inch brass expansion bolts not less than three inches long; to terra-cotta partions with heavy toggle bolts or bolts extending entirely through said partitions, and to woodwork with heavy brass wood screws. Through bolts to be provided with heads or washers on back so they may be concealed by plaster.

Faucets.—Each sink to be provided with hot and cold water finished brass nickel plated goose-neck pattern faucets of the "Fuller" type, and so made that the same can be readily taken apart for repairs. Mechanism of faucets to be perfect in every respect. Eccentrics and stems of faucets to be perfectly fitted, and the gum ball to be secured to stem with cone-shaped expanding washer and substantial brass nut. Handle of hot water faucet to have "H" cast thereon and handle of cold water faucet "C." Packing nut and gland to be so designed that a watertight, easy-moving joint will be obtained.

Water supply connections to be fitted with finished brass nickel plated milled wheel compression stops. Pipe from faucets to supply main to be as called for in the specification for the work.

Outfit.—No. 24—Planished copper sink with back; goose-neck faucets.


Cast brass non-siphoning trap not less than 3/32 thick at any point
Not less than 6" diam.
1/2" O.D. Brass Tubing B.W.G.
Slip Joint
Ground Joint
Cast Brass
Brass Pipe, 1/2" Wt. Pipe size
Not less than 1/2"
Cast Brass
Brass Pipe 3/8" I.P. Size
Cast Iron or C. in handle
Ground Joint Union
3/8" Square Rubber Washer
1/2" Pipe thread
Ground Joint Union
1/2" Compression Stop Milled Wheel
Brass Pipe 1/2" Wt. Pipe Size
1 1/2" Diam.
Ash; finish 7/8
Slip Joint
Overflow
Ground Joint Union
8" Cast Brass Bracket
Trap
1 1/2" O.D. 18 B.W.G. Brass Tubing
Drain board to be of dimensions shown on plans; to be thoroughly soaked in linseed oil, well brushed off on the surface before being set in place This may be done at place of manufacture.
16-ounce planished copper.
Ash; finish 7/8
Finish
24"
1 1/4" diam. Rubber Plug
Finish

GOVERNMENT SPECIFICATION PLATE 40.

Annual Meeting of the American Society of Heating and Ventilating Engineers.

THE nineteenth annual meeting of the American Society of Heating and Ventilating Engineers was held in the Engineering Societies' building, 29 W. 29th St., New York City, on Tuesday, Wednesday and Thursday, Jan. 21, 22 and 23. The main features of the meeting was the first draft of a uniform bill for compulsory ventilation and the committee reports, which are valuable for the useful information they contain regarding schoolroom ventilation, motion picture theaters and on tests.

The first session was opened on Tuesday afternoon at 2:30 o'clock by Acting President John F. Hale, who presided in the absence of the president, John R. Allen, who is in Constantinople, Turkey. A motion to dispense with the roll call was carried, together with the reading of the minutes of the last meeting. Mr. Hale then proceeded to read President Allen's address, entitled "Development and Present Problems in Heating and Ventilation." President Allen suggested therein several expansive activities in which the society might enter to enlarge its usefulness. Mr. Hale, in closing, stated that the president's paper was written during the progress of a battle and amid the boom of the Bulgarian guns.

The annual report of Secretary W. W. Macon was then read as follows.

The most apparent activities of the society's headquarters this year have been the production of two volumes of proceedings in one year; the issuance of a booklet intended to assist in the matter of campaigning for new members; and the supply to members of a voluminous amount of heating and ventilating literature. As regards the considerable number, size and character of the contributions to the two meetings of 1912, the secretary feels that the society is greatly indebted to the authors, many of whom gave results involving considerable labor, and it is felt that the merits of these contributions will be more apparent when the volume for 1912 is issued. The general editing for both the last annual and summer meeting has been completed, and it remains only to prepare the copy for the compositor and to arrange for the additional illustrations before the matter is sent to press. The secretary himself feels highly grateful to the many who assisted in the remarkable triumphs of the two meetings.

The financial showing for the last year is herewith sumbitted:

The cash on hand at Jan. 25, 1912, amounted to $1,397.41 and the total receipts from all sources for the year was $4,717.40. The disbursements amounted to $5,073.19, leaving a balance on hand at Jan. 21, 1913, of $1,041.62.

The lateness of the receipt of papers for the present meeting has interfered with the cherished hope of the secretary that all papers might be sent considerably in advance of the meeting, not alone to members, but to those who might be specially invited to take part in the discussion because of their special knowledge on the subject. It is still worth while to emphasize, however, that the papers after being sent to the members can be discussed in writing, while the author will have his prerogative of closing the discussion before the information is arranged for the annual volume of proceedings.

On motion the report was accepted. Treasurer James A. Donnelly, in making his report, suggested that some arrangements might be made whereby the treasurer will retain in his possession vouchers for all money paid out, and some additional checks on bills to be paid.

The report of the board of governors was read by Secretary Macon and on motion was received as follows:

The board of governors makes the following report of the activities of the society since the organization of the board, Jan. 24, 1912, immediately following the last annual meeting.

The board has maintained headquarters in the Engineering Societies' building and the office of the secretary has been used to a greater extent than before by the individual member and by committees for meeting purposes. In this connection, the board feels that special recognition should be taken of the petition offered to the previous board of governors early in 1911 by 12

PRESIDENT JOHN F. HALE

members offering to raise the money necessary to maintain the society's headquarters in the Engineering Societies' building, as it then seemed that some difficulties might arise in providing for the extra amount of money which such a departure might entail. The experience of the last two years has abundantly proved the wisdom of the choice and of the society's ability to maintain its headquarters in a building so admirably adapted to its use and so specially identified with the engineering profession in its largest aspect. It has not yet, nor is it likely that the society will ever ask for this proffer of funds and it is here officially declared that the petitioners are relieved of their self-imposed obligation and that this special record is to be taken as token of appreciation on the part of the board.

Among the notable events of the year is to be mentioned the Summer meeting of 1912, held in Detroit, Mich., July 11 and 12. The meeting was remarkable for the volume and character of the technical contributions, and for the admirable entertainment arrangements which had been made by the Detroit members.

New Chapters.—The board had the pleasure of approving an application from and approving the by-laws of the Massachusetts Chapter, centered in Boston, and is glad to take cognizance of the suggested formation of a chapter with headquarters in Philadelphia. The board feels that it is altogether in order to express a word of encouragement toward the establishment of chapters, which have proved advantageous to a local group through opportunity to congregate periodically, and to exchange information more or less informally, a practice which has already proved of permanent benefit to the progress of the society itself.

Interest Manifested.—Some of the side lights indicating a degree of interest in the society are obtained, for example, through the attendance at the Summer meeting, and the percentage of members voting on mail ballots. At the Detroit meeting about nine per cent. of the membership was present, and the guests numbered two for every member, a ratio calculated also to indicate a growing interest of non-members toward affiliation. As regards the vote on the proposed changes to the by-laws, no less than 34, or three per cent. of the votong strength, was polled, and the by-laws were adopted by a large majority over the necessary two-thirds.

The financial reports are dealt with in the reports of the secretary and treasurer. While the outgo for each member is still considerably greater than the amount of dues from the member, and the society is still maintaining solvency through the use of initiation fees and dues, the per capita cost has been reduced, in spite of a large increase in the number of pages of technical information already supplied to the members this year, as compared with former years. It is still clear that a decided increase in membership is needed if the same scale of recent operations is to be continued without impairing the financial status. It might here be stated, as a matter of general record, that the auditing committee, appointed at the beginning of this last year to audit the books of the secretary and treasurer, found them correct. The reports of both the secretary and the board of governors were mailed to members early in 1912.

Representation at Other Meetings.—The board held eight meetings during the year, and its deliberations in detail will be found in the society records. The society was represented in other meetings and in committee work with other societies as follows: Nelson S. Thompson, at the International Congress of Hygiene and Demography, Washington, D. C., Sept. 23-28; D. D. Kimball was appointed chairman of the section on ventilation in the Department of Industrial Hygiene and Sanitation of the American Museum of Safety, New York; S. R. Lewis, J. H. Davis, N. L. Patterson, Theodore Weinshank and J. G. Hayes were appointed to represent the society at the National Conservation Congress, Indianapolis, Ind., Oct. 1-4; James D. Hoffman represented the society at the International Congress for Testing Materials, New York, Sept. 2-9; E. F. Capron, D. M. Quay, W. F. Davendorf, M. L. Foote and W. C. Green were appointed a committee to confer with the National District Heating Association.

Acknowledgment of Gift Books.—A notable gift was made to the society by Dr. William Paul Gerhard, C. E. This present comprised 89 books and pamphlets on heating and ventilation in the English and German languages. These volumes have been installed in the society's library, and it is desired that the society in the annual meeting shall take special recognition of the bequest, which will undoubtedly be very highly appreciated, particularly as it affords the individual member an opportunity to consult books, many of which are rare.

Increase in Membership.—The details of the changes in membership are shown in the accompanying summary. Two ballots were canvassed in the usual manner on June 4 and Dec. 19. There were 27 candidates on the first ballot, of which number one failed of election; there were 27 candidates on the second ballot, of which number two failed of election. The reinstatements of the year amounted to three, making a gross

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increase of 54. There was an absolute loss of 30, as shown in the accompanying summary, making a net gain of 24.

The most trying character of loss is that which had to be recorded this year, namely, in the failure of two candidates to qualify for membership after continued forbearance on the part of the officers.

Status of Membership.—The membership of the society at Jan. 25, 1912, was 425, comprising 382 full members, 27 associate members, 13 junior members and three honorary members. There were 31 accessions to full membership by election, two by reinstatement and one by advancement from junior grade during the year, and eight losses by resignation, 12 by non-payment of dues, one by failure to qualify and five by death, a net increase of eight members.

The associate membership was increased by election of 14 and reinstatement of one, and there were four losses by resignation, non-payment of dues and failure to qualify, a net gain of 11. There were six accessions by election to junior membership and one loss by advancement to full membership, or a net increase of five, making the total membership of the society at Jan. 21, 1913, 449, showing a total increase for the year of 24.

The society suffered the loss of four members by death this year, and one other, whose demise was reported too late to be included in last year's statements. The list includes a past president and also a charter member. The officers have already taken the initial steps toward expressing sympathy toward the members of the families of the deceased, and it is here urged that in the volume of proceedings for 1912 biographical sketches be incorporated, so that there may be a lasting record of the career and achievements of the departed members, who are as follows: Warren S. Johnson, Los Angeles, Cal., who joined the society in 1906, and who died Dec. 5, 1911; W. C. Bryant, who joined the society in 1901, and who died April 6, 1912; Herbert A. Joslin, who joined the society in 1896, and who died Oct. 3; Andrew Harvey, a past president, who joined in 1896, and who died Oct. 9, and Newell P. Andrus, a charter member, who died Jan. 13, 1913.

Those who were honorably withdrawn from membership, because their resignations could be accepted, were: Frank W. Foster, Boston, Mass.; Louis D. Collins, Geneva, N. Y.; J. G. Eadie, Bayonne, N. J.; J. J. Tait, San Francisco, Cal.; N. L. Danforth, Buffalo, N. Y.; A. T. Kellogg, Francitas, Texas.; H. H. Ritter, New York City, and W. C. Doolittle, Utica, N. Y.

Recommendations.—Finally, the board desires to make a number of recommendations.

1. That the incoming council institute an investigation into the status of the present by-laws in relation to the membership corporation law of the State of New York.

2. That steps be taken to amend the by-laws, so that the report of the nominating committee shall be placed in the hands of the secretary 90 days in advance of the annual meeting so that plenty of time shall be given for publicity to the nominating committee's report, and the opportunity be made available for independent nominations prior to the time when the ballots should be presented to the membership, namely 60 days, as stipulated in the by-laws.

3. That for its financial reports the business year range from January to January, so that there can be plenty of time for the proper closure of books and preparation of reports, as well as an investigation of the accounts by the auditing committee prior to the annual meeting.

4. That an applicant for membership be not given the opportunity to state the grade of membership he desires to enter, so that the membership committee and the council may place the applicant in the class to which he belongs, and time may be saved in preparing ballots for voting.

5. That the incoming council consult the desirability of establishing a voucher system of checks for making the society disbursements.

Frederick K. Davis, Edward L. Munroe and M. G. Scollay were appointed as tellers of election by Acting President Hale.

An auditing committee, comprising Frank K. Chew, Walter S. Timmis and James H. Davis, was then appointed.

Samuel R. Lewis read an interesting report of the Illinois Chapter. He outlined the subjects to be discussed at the future meetings and was quite certain that at the end of the year there would be an increase of 100 per cent. in membership.

Secretary Joseph Graham, of the New York Chapter, in rendering his report, stated that the chapter was in a flourishing condition and had at the present time a membership of 74, including two honorary members, six associates and one junior.

J. W. H. Myrick reported for the Massachusetts Chapter. He stated that his chapter has been instrumental in having prepared for the State Legislature a bill to separate heating, ventilating and electrical contracts from the general contracts.

Secretary Macon then read the report of the committee on compulsory legislation, of which J. D. Hoffman is chairman. The report read as follows:

Your committee has had under advisement this year several drafts of a model law, but so far has not succeeded in putting it in such shape as to be wholly acceptable to the members of the committee. Each draft excepting the last one, which is here presented, comprehended a

JAMES A. DONNELLY, TREASURER.

two-part bill, *i. e.*, the first part including schools, auditoriums, hospitals, theaters, moving picture shows and other meeting places for mental, physical and social improvement and recreation; and the second including factories, mercantile establishments, mills and workshops. Of the two parts above mentioned the first presents an easier solution, and the chairman here submits only that part with his report for your consideration, in the hope that some discussion may be given the subject to guide future committees in this work.

The chief difficulty in preparing such a work is the unsolved problems of "what constitutes good ventilation?" The old standards have been questioned and entirely discarded by many, but as yet no new ones are formulated to take their places. In this unsettled condition there should be a thorough discussion before the committee report can be said to represent the views of the society.

Appearance of Radical Articles.—Some technical articles appearing within the last year or two have made statements that are extremely radical, to say the least, when analyzed with calmness and good judgment. Many of these extremely partisan statements will later be found to be ill-advised, but the agitation proves concusively that the subject is being studied more than ever before.

Prominent men of science are conscientiously giving time and energy to find a solution that may be generally adopted. All honor to such men. Great care should be exercised, however, not to become so sensational and vitriolic in public denunciation of existing conditions as to forfeit the applause of thinking men, as was true of an article entitled "The Vicious Quantitative Standard of Ventilation," which came out in one of our prominent engineering journals bearing a photograph of the author and a half-page cartoon, the latter more fitted to adorn the front page of the Police Gazette than to elaborate what was supposed to be a serious article for the betterment of mankind, by one who claims to be an engineer.

Again, it is unwise to make sweeping conclusions as to the permanent effects upon humankind from a few short tests of a few hours' duration, as for example the following, which is quoted verbatim from one of our American journals:

"These experiments prove conclusively that through the metabolic assimilation of man no gaseous excretions of a toxic character and capable of causing health-interfering effects observed in crowded rooms, are thrown into the atmosphere. On the other hand, all the experiments indubitably indicate that the cause of such interference with health is to be traced to the thermal conditions of the environment and to the heat accumulation conditioned by this environment."

Such a statement is justifiable only after years (instead of days) of careful investigation. No one will doubt that the experiments leading up to this conclusion showed improved temporary comfort and stimulating effect by certain degrees of air movement, temperature and humidity, but how about the permanent effect?

Suppose a number of persons were being experimented upon and some of these were unfortunate enough to be afflicted with diseased lungs or skin. Would the health of the other occupants be permanently affected if obliged to breathe this air indefinitely? Suppose we assume that all the persons were in good health when the experiment began, could they maintain this good health permanently in an atmosphere where the by-products of combustion are continually increasing and the health-giving qualities of the air are continually decreasing? Granting that CO_2 is not poisonous, how much of an increase of CO_2 may be permitted in the air that is to be used continuously?

Granting that we can exist without *temporary* discomfort in an atmosphere having much less than 21 per cent. oxygen, what will be the *permanent* effect?

These are some of the questions that need to be seriously considered before we can consistently disregard, as some have advised, that time-honored axiom, "pure outdoor air and plenty of it." This society stands for scientific progress, and every member will welcome a thorough discussion of this most important subject.

Progress in Work.—In addition to the efforts of your committee to formulate a typical law, the work in the field is not at a standstill. In at least two States there are hopes of obtaining compulsory ventilation laws. In Nebraska your representatives are working with a committee from the Nebraska State Medical Society and expect to submit a ventilation bill to the Legislature which is now in session. In Tennessee our member, Mr. Harwell Allen, reports that he hopes to be able to submit a bill to the Legislature of that State. We trust that both of these endeavors may be friutful.

Work in Chicago.—In Chicago Dr. E. Vernon Hill has been appointed Chief Ventilation Inspector, with assurance of such assistance as will be necessary to see that the ventilation ordinances are carried into effect. This is certainly a step in the right direction. In addition, the Chicago Ventilation Commission has been reorganized with a few more members, including a member of the American Institute of Architects and a member of the Chicago Architects' Business Association. This commission will hold meetings throughout the coming year every two weeks. We hope this commission will continue the investigations with the experimental room in the Chicago Normal School, and be able to report some conclusive results at the end of the year.

Co-operation of Members Requested.—In concluding this report the committee, through the chairman, would urgently request all members of the society who have any knowledge of the working out of any of these laws to report their views as critical suggestions to the chairman of the committee for future guidance.

Proposed Ventilation Law.—General.—Whereas, one of the fundamental principles of this government is to guard the health of its citizens, and whereas, it is considered absolutely necessary to health that buildings used for school purposes, auditoriums, hospitals or sanitariums, theaters, moving picture shows and other meeting places for mental, physical and social improvement and

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recreation, hereafter to be erected by any municipal board, public or private corporation or private citizens, shall be properly heated and ventilater; therefore:

Section 1. Be it enacted by the General Assembly of the State of ———— that the State Board of Building Inspectors (or other organization appointed or elected to fulfill such duties) shall not approve any plans for the erection of any building as above stated, whether public or private, containing a room or rooms to be used as meeting places, study rooms, rest rooms, sick rooms or wards, laboratories, work shops, corridors, cloak rooms, toilet rooms, etc., unless the plans are in accordance with the following provisions covering such work:

Heating.—Section 2. Every office, assembly hall, recitation room, rest room, sick room or ward, corridor, cloak room, work room and toilet room, in every building used for school, health or other meeting purposes, where one or more persons are engaged in study, research, entertainment or rest, shall have provision for securing and maintaining uniform temperatures in all parts of said rooms, and such temperatures shall be maintained at all times when said rooms or apartments are occupied.

Section 3. Temperatures shall be considered satisfactory between 65 and 70 degrees Fahrenheit within the offices, assembly halls, recitation rooms, rest rooms and sick rooms; 60 to 65 degrees for gymnasiums, and 60 to 70 degrees for all corridors, cloak rooms, work rooms and toilet rooms. No room shall be considered satisfactorily heated that has a variation of temperature in different parts of the room of more than five degrees Fahrenheit.

Ventilation.—Section 4. Every office, assembly hall, recitation room, rest room, sick room or ward, corridor, cloak room, work room and toilet room, in every building used for school, health or other meeting purposes, where one or more persons are engaged in study, research, entertainment or rest, shall have provision for securing and maintaining proper and sufficient ventilation, and such ventilation shall be maintained during such hours as rooms or apartments are occupied.

Section 5. In all such buildings, located where the ventilating air may be made impure by dust from the streets or from other impurities held in mechanical suspension, approved filters or air washers shall be installed, and said filters or air washers shall be kept in full operation during such hours as rooms or apartments are occupied.

Section 6. In all buildings ventilated by mechanical means, there shall be installed humidity appliances capable of controlling the relative humidity of the ventilating air within a maximum fluctuation of 10 per cent.; the range of humidity to be between 50 and 70 per cent.

Section 7. Any room or apartment mentioned above shall not be deemed sufficiently ventilated except as follows:

First.—At least 200 cubic feet of air space, or 115 square feet or floor space shall be provided for each and every person occupied therein.

Second.—Pure air shall be supplied in the amounts as stated in this section.

For sick rooms, contagious diseases, hospitals, 3,600 cubic feet per hour per person; for sick rooms, not contagious diseases, hospitals, 2,500 cubic feet per hour per person; for auditoriums, schools, etc., 1,800 cubic feet per hour per person; for each cubic foot of gas burned, 1,000 cubic feet per hour per person.

Third—Any room or apartment having at least 1,500 cubic feet of air space for each and every person within the room or apartment and having outside windows and doors whose total net area is at least one-eighth of the total floor area, shall not be required to have artificial means of ventilation, excepting where the air is made impure by fires, gas jets, drains, etc., in which case special provision shall be made against these impurities; but all such rooms shall be properly aired before beginning work for the day and during meal hours.

Fourth.—Any room or apartment having less than 1,500 cubic feet and more than 500 cubic feet of air space for each and every person within the room or apartment, and having outside windows and doors whose total net area is at least one-eighth of the floor area, shall be provided with artificial means of ventilation which shall be in continuous operation during the period of occupancy when the outside temperature requires the windows to be kept closed, and which shall supply during each hour of occupancy the amount of air as stated under this section.

Fifth.—No part of the fresh air supply required for any room or rooms in any building shall be taken from any cellar or basement or from any other source than a direct withdrawal from the outside air.

Sixth.—The terms used in this section shall be interpreted thus: The *air space* required for each person is the total interior volume of the room expressed in cubic feet, without any deductions for equipment contained therein, divided by the number of persons employed therein. *Outside windows and doors* are those connecting directly with the outside air; the *window and door area* is the total net area of the windows and doors of all openings in outside walls, and the *floor area* is the total floor area of each room.

Section 8. Air velocities used in heating and ventilating systems for buildings as above stated shall be not more than 400 feet per minute at the register and 700 feet per minute in the vertical stacks or ducts. Where mechanical air washers are used the velocity of the air flowing through the air washer shall not exceed 400 feet per minute.

Section 9. Responsibility of providing for and maintaining said heating and ventilation shall rest with the ————.

Section 10. If a room or apartment as above stated is not provided with proper and sufficient means for heating and ventilating, the commissioner or other person in charge of such responsibility shall issue or cause to be issued to the ———— or to his representative an order requiring such heating or ventilating apparatus to be installed within a specified time, also requiring that such apparatus be maintained in operation in accordance with these aforesaid provisions.

A letter was received from E. A. May, chairman of the committee on code for testing house heating boilers, that he was unable to attend the meeting, but will present a full report at the Summer meeting.

W. M. Mackay, chairman of the committee on heating guarantees, submitted a recommendation as follows:

Your committee would recommend that the designer of apparatus should be considered responsible for the results to be obtained by its use, provided it is installed and operated as designed and intended; and that the contractor should only be held responsible for the installation of the apparatus in the time agreed, with material specified, in exact conformity with the design and specification, and such materials and labor as he may furnish in placing the apparatus, and that any guarantee which the contractor may be called upon to give, covering the installation, completion and materials and labor furnished, should not extend for a longer period than one year from the time of completion and permanent operation of the apparatus.

The question of what guarantee or assurance, if any, the designer should give the owner is one that would depend somewhat on existing conditions. If it were in an old building and the designer was thoroughly familiar with its construction, exposure and tightness, he would reasonably be expected to guarantee the successful operation of his work. If, on the other hand, he were called upon to design apparatus for a building not yet constructed, and any defect in the construction of the building which interfered with the successful operation of the apparatus designed by him for a well-constructed building should be chargeable to the architect, owner or building contractor, and not against the designing engineer.

On motion the report was referred back to the committee and suggested that it prepare a standardized form which might be used in heating work.

Chairman L. C. Soule of the committee on tests reported that the committee had not been able to get together on account of the members being located in different cities, but each one had made some investigations and would report on same.

James A. Donnelly, a member of the committee, gave a report of the visit of the New York and Boston chapters to testing laboratories of the H. B. Smith Co. at Westfield, Mass., and to the Sheffield Scientific School at New Haven.

L. A. Harding, another member of the committee on tests, gave a comprehensive report on investigations on the loss of air pressure in ducts.

A vote of thanks was tendered the committee for their work.

Among the members and guests present at the meeting we noticed the following:

Homer Addams, New York City; A. S. Armagnac, Upper Montclair, N. J.; H. F. Bailey, Pittsburgh, Pa.; Mrs. W. R. Barnes, Philadelphia, Pa.; Hugh J. Barron, New York City; C. E. Bury, Rockford, Ill.; Wm. G. R. Braemer, Camden, N. J.; H. D. Bristol, New York City; H. H. Brooks, Elmira, N. Y.; Frank L. Busey, Buffalo, N. Y.; Mrs. Frank L. Busey, Buffalo, N. Y.; A. D. Campbell, New York City; Charles G. Campbell, Boston, Mass.; E. F. Capron, Chicago, Ill.; Ralph Callamore, Detroit, Mich.; John F. Carney, Danbury, Conn.; Frank I. Cooper, Boston, Mass.; Frank T. Chapman, Montclair, N. J.; Mrs. Frank T. Chapman, Montclair, N. J.; Frank K. Chew, *Metal Worker, Plumber and Steam Fitter;* C. E. Cunningham, Kingston, Pa.; F. K. Davis, New York City; James H. Davis, Chicago, Ill.; Mrs. Jams H. Davis, Chicago, Ill.; J. A. Donnelly, New York City; Mrs. James A. Donnelly, New York City; Mrs. G. B. England, New York City; Alfred Engle, Brooklyn, N. Y.; George D. Farnham, White Plains, N. Y.; Edward E. Fox, New York City; Howard H. Fielding, Denver, Colo.; Charles N. Flagg, Jr., Meriden, Conn.; J. B. Garfield, East Orange, N. J.; Wallace F. Goodnow, New York City; George V. Greve, Amityville, N. J.; A. Gross, East Orange, N. J.; Joseph Graham, *Domestic Engineering,* New York City; John F. Hale, Camden, N. J.; John F. Hanbury, New York City; Louis A. Harding, New York City; Charles A. Haslett, Philadelphia, Pa.; Richard B. Hunt, Mt. Vernon, N. Y.; William B. Hutton, *Metal Worker, Plumber and Steam Fitter;* Henry G. Issertell, Yonkers, N. Y.; Mrs. Henry G. Issertell, Yonkers, N. Y.; F. P. Keeney, *Domestic Engineering,* Chicago, Ill.; Arthur A. Kierwitz, New York City; Mrs. Arthur A. Kierwitz, New York City; Conway Kierwitz, New York City; Raines Kessler, New York City; A. A. Kiel, Newark, N. J.; W. G. Le Compte, East Orange, N. J.; Robert Lemming, Ossining, N. Y.; Samuel R. Lewis, Chicago, Ill.; Mrs. S. R. Lewis, Chicago, Ill.; Frank G. McCann, New York City; Wm. M. Mackay, New York City; Mrs. W. M. Mackay, Newark, N. J.; W. W. Macon, New York City; Mrs. W. W. Macon, New York City; W. J. Marshall, MERCHANT PLUMBER AND FITTER; William F. McDonald, Detroit, Mich.; J. E. McGinness, Pittsburgh, Pa.; F. S. Moore, Port Chester, N. Y.; T. E. Morford, New York City; Charles Morrison, Melrose, Mass.; Edward K. Munroe, Baltimore, Mass.; James W. H. Myrick, Boston, Mass.; F. M. Norton, *Plumbers' Trade Journal;* J. F. Page, Orange, N. J.; F. G. Oakes, Brooklyn, N. Y.; George O'Hanlon, New York City; J. H. Parker, MERCHANT PLUMBER AND FITTER; F. Greatorex Punsley, Brooklyn, N. Y.; L. H. Quackenboss, New York City; W. S. Ransom, Westfield, Mass.; Wm. Ritchie, New York City; Arthur Ritter, Brooklyn, N. Y.; V. G. Scollay, Brooklyn, N. Y.; Mrs. Charles E. Scott, Brooklyn, N. Y.; Chester A. Slocum, Long Branch, N. J.; William G. Snow, Boston, Mass.; Albert H. Spear, *Plumbers' Trade Journal;* W. R. Stockwell, Irvington, N. Y.; James M. Stannard, Chicago, Ill.; A. E. Schad, Chicago, Ill.; E. Schurmann, Indianapolis, Ind.; E. A. Scott, *Metal Worker, Plumber and Steam Fitter;* Charles E. Scott, Brooklyn, N. Y.; R. W. Smith, St. Louis, Mo.; L. C. Soule, Chicago, Ill.; Walter S. Timmis, New York City; G. F. Travis, Belleville, N. J.; E. J. Treat, New York City; William C. Vrooman, Schenectady, N. Y.; Mrs. W. C. Vrooman, Schenectady, N. Y.; Charles E. Warsop, New York City; Theodore Weinshank, Indianapolis, Ind.; Harry S. Welsh, Rochester, N. Y.; Herbert W. Whitten, Boston, Mass.; Arthur C. Willard, Washington, D. C.; Harry L. Williams, Pittsburgh, Pa.; Thomas Wilson, New York City; E. DeForest Winslow, *Domestic Engineering,* Chicago, Ill.; A. C. Edgar, Philadelphia, Pa.; Fred R. W. Fischer, New York City; E. C. Hinkle, Palmyra, N. J.; Mrs. E. C. Hinkle, Paymyra, N. J.; William R. Waters, New York City; George G. Schmidt, New York City; Charles Ashland, New York City; Albert B. Franklin, Boston, Mass.; Harris J. Engle, New York City; William N. Ennis, New York City; Rudolph Ewald, Jersey City, N. J.; Frank H. Fabricius, New York City; Henry B. Gombers, New York City; Richard Hankin, Passaic, N. J.; Miss B. R. Innis, New

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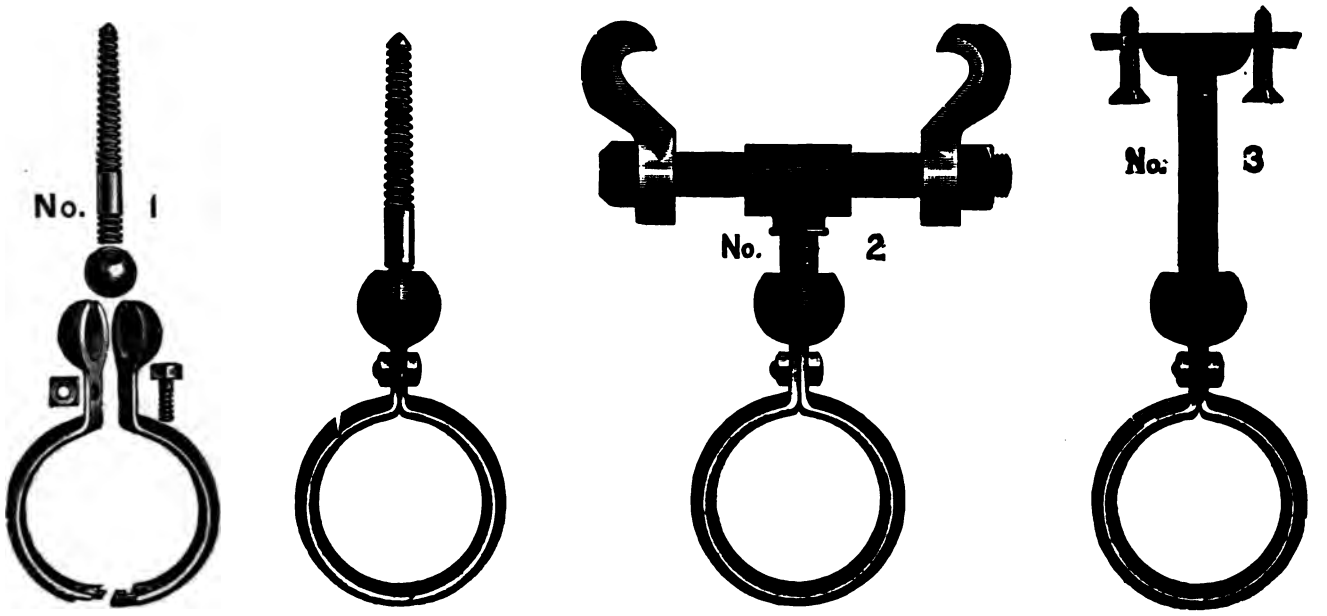

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Nominations for members of the Nominating Committee were then received and Acting President Hale appointed as tellers of election Frank L. Busey, Frank G. McCann and Howard H. Fielding. The election resulted in the following members being elected as the Nominating Committee for the ensuing year: Homer Addams, William G. Snow, James H. Davis, E. K. Munroe and L. C. Soule.

The Auditing Committee placed their O. K. on the books of the treasurer.

Two motions were made by Secretary W. W. Macon, the first to the effect that a recommendation be made to the incoming council to change the ending of the fiscal year to Jan. 1; the second to the effect that applicants for membership shall not state the grade of membership they desire, but that this matter be left to the Membership Committee, which, after considering the application, will notify the proposers of the grade to which the applicant has been assigned and they in turn will then notify the secretary if such is satisfactory. These motions being seconded and discussed, were finally carried.

At the opening of the evening session on Tuesday the results of the election of officers for the ensuing year were announced by Frederick K. Davis as follows: President, John F. Hale; vice-presidents, E. F. Capron, A. B. Franklin; treasurer, James A. Donnelly; managers, Frank T. Chapman, Ralph Collamore, D. D. Kimball, W. W. Macon, J. M. Stannard, Theodore Weinshank. John R. Allen and R. P. Bolton are also members of the council.

A paper entitled "Downward Ventilation in a Rockford, Ill., Schoolhouse," was read by the author, Clinton E. Beery.

An interesting paper, entitled "Improved Air Conditions in a Boston Residence," was read by Frank Irving Cooper, in which he described an installation in a Boston residence which comprises the use of electric radiators for heating, humidifying, air washing and ozonizing apparatus.

These papers will appear in future issues of the MERCHANT PLUMBER AND FITTER.

Frank Irving Cooper, chairman of the Committee on Schoolroom Ventilation, then gave the following report for the committee:

Next to efficient teaching the most important requirement for successful school work is properly heated and ventilated schoolrooms.

Standards.—Although it is futile to attempt to set identical standards of efficiency for the heating and ventilating of schoolrooms, it is true that the possibility of finding new efficiency factors is not remote.

It has been explained often enough that the best temperature is still to be found, and that it is absolutely out of the question to measure in definite terms the difference that makes a certain day one in which work goes on with vim and vigor and another day one in which everybody desires the end to come, and that right speedily.

The results reached by the system for air conditioning should be measured on a standard based on health of pupils, and not on dollars of cost of installation.

Present Conditions.—The pupils in open-air schools seem to be in better health and to progress faster than the pupils in our best buildings having modern system of ventilation. That anyone knowing this fact should be responsible for the erection of buildings having no proper ventilating systems is truly criminal.

The most perfect construction yet reached is that in which the building has facilities for open-air conditions and also has a complete system of air conditioning, to be used when weather conditions make it unwise to follow the open-air method.

Findings of the Russell Sage Foundation.—The Russell Sage Foundation has just completed a comparative study of the public school systems in the 48 States and what they found is astonishing. The report states that Massachusetts spends more money on school buildings per child than any other State in the Union, the average equipment per pupil being $115; New York, with $111, is a close second; Mississippi stands at the foot, spending only $4 per pupil. There are some climatic reasons for this difference, but there seems no good reason for the kind of buildings this low expenditure indicates.

Massachusetts stands second among the States in the completeness of its regulations for proper supervision of the erection of school buildings, while Mississippi has no State control over its buildings.

That the low grade of building and equipment has its influence on school life is further shown by the Russell Sage Foundation in the rank of the States based on the pupils' attendance at school, Massachusetts in this class ranking second and Mississippi again standing at the foot.

Public Interest.—These comparative studies are of interest to us when we consider the awakened public interest in proper air conditioning plants. Two towns situated geographically at the extremes of Massachusetts have made contracts this past Summer for ventilation which should include humidifying the air in their new high school buildings, and the city of Boston has decided that all new buildings shall be so arranged that they may have open-air schoolrooms.

The Boston Experiment.—Those teachers that know of the air conditioning in the Oliver Wendell Holmes school building are asking that some method of air moistening shall be introduced in the heating systems in their buildings.

The work of this committee, the experiments which have been conducted, and the interest which has been aroused have had undoubtedly great influence in bringing about the present high standard taken by the school committee of the city of Boston in regard to heating and ventilating of new school buildings.

Report of the American School Hygiene Association.—The committee of the American School Hygiene Association on heating and ventilating school buildings says in its report: "Open windows did not always make conditions satisfactory. When there was no breeze, ventilation was inadequate. When the window was near the street, noise and dust were introduced. Open windows were productive of uneven temperature. Persons near the windows would be too cold, exposed to storm and sudden drops; those away from the windows would frequently be too warm and in relatively motionless air.

"Regulating temperature by having the teacher open windows gave her one thing more to attend to. The teacher would forget or the temperature of the room would be kept at a point which was most pleasant to her. It seemed, therefore, obvious, first, that the air should be forced into the room in regular quantities in such a way as not to depend upon or demand the thought of the teacher; second, the air should be free from dust; third, the air should be taken from odorless sources; fourth, the air should be introduced into the room in such a way as to change the contents several times an hour without making perceptible drafts; fifth, the temperature of the room should be automatically regulated.

"The conditions just named with reference to the nature and excellence of the air have been provided by the heating and ventilating engineers.

"In many instances heating and ventilating plants are not competently managed and the lack of best results may, in these cases, be attributed to the fault of the administration rather than to the fault of the system.

"Heating and ventilating systems have not as yet been able to make indoors as healthful as outdoors—no matter what the system or how managed. This has raised a serious question in the mind of your committee as to whether existing standards are adequate, for, as has already been stated, even when the standards are fully met, the differences between the beneficial quality of indoor and outdoor air do not seem to have disappeared.

"The chief question does not seem to be a question of engineering; the best modern systems of ventilation do seem to do what has been asked of them."

Your committee has found that there is no agreement among the physiologists and the medical profession as to what constitutes best conditions of temperature, humidity and air movement.

When they agree upon the conditions to be reached and communicate their agreement to the heating and ventilating engineers a great step will have been taken, for with the fixing of a standard of the requirements the chief difficulty will disappear.

The annual banquet of the society was held Wednesday evening at the Hotel Martinique, President Hale presiding. Short talks were indulged in by Mrs. Florence Kelley, secretary of the National Consumers League; John Martin, of the Board of Education of New York City, and chairman of the committee appointed some time ago by the mayor to investigate the heating and ventilating of schools.

Thursday morning, the last day of the convention, President Hale called for a discussion on the topic of "Establishing a Standard Practice of Measuring Air Velocities at Registers." After some little discussion by Mr. Haslett and others, President Hale appointed C. A. Haslett, J. P. Lyle and A. A. Hall a committee to report on same at the afternoon session.

A paper was read by Frank Chew, entitled "Analysis of a Combination Heating System for a Residence."

Mr. Chapman, chairman of the committee on Ventilation of Motion Picture Theaters, then made his report. Lack of space precludes our publishing this interesting report at this time, but it will appear in a future issue.

A letter was read by Frank Chew from the H. B. Smith Co., of Westfield, Mass., offering the facilities of their laboratory at any time to the society.

At the opening of the afternoon session E. P. Lewis occupied the chair during the installation of the new officers.

The report of the Committee on Proposed Standard Methods for Measuring Air Velocities at Air Supply Openings by Means of an Anemometer was then read by Acting Secretary Macon, as follows:

1. The opening shall be divided into equal rectangular areas, no side of which

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shall be over 10 inches long, excepting where this would require more than ten readings, in which case the opening shall be divided into twelve equal areas.

2. Readings are to be taken in each case at the center of each area.

3. Readings are to be of one-half minute duration, the anemometer being held at the registetr base or in plane of opening.

4. Where the diffusers are used, a total area is to be computed on the basis of the periphery of the diffuser.

5. The average of the readings to be considered at the average velocity at the opening. Where negative velocities are found, they are to be deducted in arriving at the average velocity.

6. In computing volume the net area of opening is to be taken, the volume to be considered as the product of the velocity and the net area of the opening.

On suggestion of F. I. Lewis a clause was added to the effect that if it were decided to hold the anemometer two inches from the register face, no deduction should be made for the area occupied by the register mesh.

This report was taken up and discussed section by section, Messrs. Whitten. Cooper, Williams, Armstrong, Hinkle, Collamore, McCann, Davis, Harding, Lyle, Lewis, Baldwin and Haslett taking part in the discussion.

After a discussion on the committee report of compulsory legislation, which appears elsewhere in this issue, James A. Donnelly was extended the privilege of the floor and gave a report of the Committee on Tests.

A letter was read from the American Society of Mechanical Engineers outlining its activities in connection with the standardization of standard and extra heavy flanges.

On motion it was decided to appoint a committee to co-operate with the American Society of Mechanical Engineers in the handling of this matter of standard flanges.

Southern Plumbing Examinations.

ON Friday, Jan. 10, the first plumbers examination was held at Greenville, S. C., the test being conducted by City Engineer C. P. Ballenger. Seven master plumbers were examined, but only five of them passed the test satisfactorily, that is, made an average of 70 per cent. or more on the combined examinations.

Those who stood the examination are as follows: James Doak, of the firm of Doak & McKechnie; T. W. Barr, of Barr Hardware Co.; J. V. Johnson, of the Johnson & Sullivan Co., and T. E. Ross. Following the examination City Engineer Ballenger reported to City Clerk and Treasurer League that the following firms were eligible to do business in Greenville: Doak & McKechnie, Barr Hardware Co., Johnson & Sullivan, T. E. Ross and Harrison Bros. W. B. Harrison, of the firm of Harrison Bros., being a member of the Board of Examiners, did not have to stand the examination.

The examination consisted of 10 questions, dealing with the principles of plumbing and a chart examination.

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THE Raisler Heating Co. is the buyer of Nos. 129 and 131 Amsterdam Ave., New York City. A four-story factory of concrete will be erected for the heating company's use. The property was bought in the name of Benjamin F. Foster.

Lichtenstein & Klein, of 180 E. 78th St., Manhattan, are busy on a number of steam contracts.

Harry Klein, formerly of 238 E. 95th St., Manhattan, has removed his plumbing shop to 1851 2d Ave. Mr. Klein makes a specialty of hot water heating.

Avery & Bryce, plumbers and general contractors, of 956 Lexington Ave., Manhattan, are busy on a large contract at 25 W. 23d St. A short time ago this firm was called in on a job, where there was an insufficient supply of water flowing through the meter. The plumber previously called in said that probably a fish had got caught in the tap. The joints near the meter were cut and the pipe was found to be almost closed on the inside by solder which a careless workman had dropped in, thereby leaving about ⅛-inch space for the flow of water.

A Hot One from His Honor—the Mayor.

PRAISE for the Water Commissioner, Henry S. Thompson, and a rebuke for the Rev. Frederick J. Keech, of Brooklyn, are contained in a letter from Mayor Gaynor to the clergyman, made public at City Hall on Jan. 8. The Mayor addresses Mr. Keech as "Reverend sir," and says:

Your letter complaining that the Water Department is annoying you by examining the plumbing in your house, and requiring a leak to be repaired, was duly received. You say that this course on the part of the Water Commissioner is (I quote you) "so positively annoying that no decent, intelligent citizen desires to own a piece of tenement property." You also say as follows: "I ask you in all fairness and justice, are you going to allow this sort of mismanagement to continue. Can't you find an intelligent man with common sense to put at the head of the Water Department?" Your letter is uncharitable from beginning to end. And, without hurting your feelings, may I add it is what is usually called mean.

I receive such letters now and then, but this is the first one that has come from a clergyman. Did you know Mr. Thompson, the head of the Water Department? Do you not know that he is conceded to be a first-class man, and probably the best Water Commissioner the city ever had? Why do you try to strike him behind his back by writing such a letter to me? Why did you not go to him and be fair and square with him?

But I overlooked the uncharitable tone of your letter, and had a careful examination made into your case. I am able to report to you that a leaking faucet was found in your house, that you repaired it, and that your plumbing is now in good condition. May I also inform you that Mr. Thompson instituted an examination of the plumbing throughout the city to prevent waste of water by leaks.

The result has been a vast saving to the city. By this system of inspection, Mr. Thompson has saved in Brooklyn alone 19,000,000 gallons daily since last August, which at meter rates, is a saving of $922,355. And allow me to add that this was done at a cost to the city of less than $25,000. In the Borough of Manhattan over 60,000,000 gallons a day is being saved in the same way at a like cost.

"Now," adds the Mayor, "do you not think you owe Mr. Thompson an apology? Do you not think you ought to go to him as one man goes to another, and say a word of commendation to him, instead of abusing him?"

New York Examining Board of Plumbers.

IN response to an invitation from the Examining Board of Plumbers of the city of New York to be present and see the kind of tests and the open manner in which they were conducted, we journeyed over to Pratt's Institute in Brooklyn, Friday, Jan. 17, to see how the new board would put the future master plumber through his paces.

The tests were held in the plumbing shop where the students of the institute are instructed in the practical branches of the plumber's art, and it was surely an ideal place for the board to catch on to the merits of the applicants who are striving to gain a foothold in the plumbing world.

The applicants were allowed three hours in which to do their stent and in many instances but two hours were consumed in finishing up.

The plumbing board, which is composed of Messrs. Albert De Roode, Paul S. Bolger and J. M. Morrow, were ever on the alert to catch any discrepancies in the finished product of the applicants, and it is safe to say that the aforesaid applicants must pass the examination on their merits or not at all.

Counselor De Roode informed us that the applicants will not be required to answer any questions but those applicable and pertaining to the trade, and a rating of not less than 65 per cent. will be considered a fair average.

Distributed around the benches were 23 hustling aspirants for certificates of competency as follows:

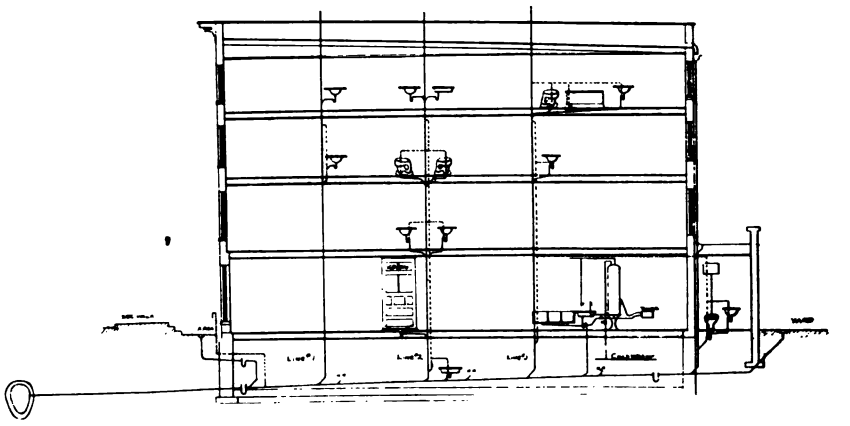
Max Kottler, Max Harwitz, Vincent Vicidomina, Frederick Stern, Charles A. Frederick, Thomas J. Duffy, Louis A. Klein, Israel Zussman, Frederick G. Heckelt, Leo Ehilich, Charles Goldstein, Mortis Mankovitz, Charles Lederle, Jacob F. Eck, Robert Fox, Frank G. Search, Jr., Hyman Greenspan, Charles A. Fett, Arthur E. Schoener, J. Luttinger, Charles Stirner, Herman W. Stork and Louis Josephson.

Stewart F. Barr, one of the instructors of the plumbing class at Pratt's Institute, was in attendance, looking after the interest of all concerned, placing at the disposal of the plumbing board all the material and implements of the plumbing department that would tend to make the practical examination of the applicants a success.

Among the guests of the plumbing board present were Herman F. Moosbrugger, a member of the examining board of Somerville, N. J., and Frank Reynolds, of New York.

The examinations were resumed the following day at the New York trade schools in Manhattan.

The following is a copy of the questions and plan which were used at the examination Friday, Jan. 24, at the meeting of the examining board of plumbers at 149 Church street, New York City.



IMPERFECT PLAN SUBMITTED TO THE APPLICANTS BY THE NEW YORK EXAMINING BOARD.

I

Where, to a brick public sewer, should the connection be made for house sewer?

II.

Why is a main trap placed on house drain?

III.

Why is a fresh air inlet pipe used; where should it begin and end, and what size pipe should be used?

IV.

Where do soil lines begin and end?

V.

Why is a vent pipe used in connection

with the traps of plumbing fixtures?

VI.

What are the requirements of the Department of Buildings for water closet compartments?

VII.

What is the greatest distance permitted by the plumbing bureau of the Department of Buildings for a horizontal run of a 2-inch vent pipe?

VIII.

What material should be used for horizontal runs of vent pipes?

IX.

Where should exhaust or blow-off pipes of a steam system be connected to the

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drainage system, and what precaution should be taken?

X.

How could the discharge of waste water and solids from plumbing fixtures be taken care of where the public sewer is above level of the plumbing fixtures.

XI.

How should sub-soil drains be connected to house drain, and what precautions should be taken?

XII.

Make a sketch of a common overflow wash basin fitted with a Bower's Trap.

XIII.

What causes the displacement of water from traps on plumbing fixtures?

XIV.

What is meant by an air-lock in connection with a drainage system and how would you remedy it?

XV.

How would you make a smoke test of the drainage and vent pipe system in a building?

XVI.

Why are check valves placed on cold water supply pipes to hot water kitchen boilers at times, and what precaution should be taken when such is the case?

XVII.

What causes a copper hot water kitchen boiler to collapse?

XVIII.

In a hot water kitchen boiler, where complaint has been made that there was not enough hot water, and previous to the complaint there had been enough, where would you look for the cause and what could be the different causes?

XIX.

What are the requirements of the Department of Water Supply, where a corner building has one water supply extended into the building from a separate main pipe on each street?

XX.

When and where can earthen pipes be used for drainage in connection with a plumbing system?

His Poor Spelling Cost Him License.

SUPREME COURT Justice Hendrick on Jan. 29 refused a writ of mandamus to Harry Segal, a plumber of 107 E. 115th St., New York. Segal wants to compel the Examining Board of Plumbers to rescind an order canceling his certificate of competency, upon which he obtained a plumber's license.

James M. Morrow, chairman of the examining board, said in an affidavit that Segal was called before the board and questioned as to why he answered certain questions at a written examination on June 10 last in the words he used. The chairman said that Segal's answers to four of the leading questions were word for word as the questions had been answered by seven other persons at different times.

Morrow said that the board on Jan. 9 tested Segal's spelling of certain words which appeared in his examination papers of June 10. The words were spelled originally as follows: "Horizantel, diametar, friction, hydralic and circulation." When asked to spell them orally Segal spelled them this way: "Harezantel, daemete, fricksen, hiderialek and serkolesen."

The chairman said that Segal was also called before the Commissioners of Accounts and asked certain questions which he had answered correctly on his written examination. Some of the questions and answers were:

What is the action of a suction pump?

It is known as a pump that takes the water from the cellar to the top floor.

What is a receptacle?

A receptacle is like a receptic.

Now tell me what is a receptacle?

A receptacle is like—you see—very different; the difference between the other thing.

What do you mean by the word "impedes?"

Impedes—it is a thing like—I can't remember.

What is a sump?

I don't remember.

What is the difference between a compressed cock and a ground key cock?

I don't know what it is.

Chairman Morrow told the court it was evident that Segal had obtained the questions before the examination through the fraud of some one and that the board had a right to revoke his certificate. He said that Segal testified he got his information from certain books and from his general knowledge as a plumber, but the books named did not contain such answers as he gave.

Bulletin to Technical and Trade Publications.

IMMEDIATELY after the annual meeting of the American Society of Heating and Ventilating Engineers, the council met for purposes of organization in the Society's headquarters in the Engineering Societies Building, New York.

Edwin A. Scott was appointed secretary to succeed W. W. Macon, whose term of office expired with the outgoing administration.

Mr. Macon's professional duties have assumed such proportions that he found it impossible to continue further as secretary.

At this meeting the council decided by lot as prescribed by the constitution the terms of office for the vice-presidents and managers as follows:

Vice-presidents.—Albert B. Franklin, term expires, 1914; Edmund F. Capron, term expires, 1915.

Managers.—D. D. Kimball, term expires, 1914; J. M. Stannard, term expires, 1914; W. W. Macon, term expires, 1915; Ralph Collamore, term expires, 1915; Frank T. Chapman, term expires, 1916; Theodore Weinshank, term expires, 1916.

Augusta Master Plumbers' Annual Meeting.

THE Master Plumbers' Association of Augusta, Ga., enjoyed a "blow-out" Jan. 22. It was the date for the annnual meeting of the organization, but a previous decision had been reached that "business' and pleasure would mix," and it did. The members gathered at the Elks' Club rooms and, to quote one of them, "We had just about the most enjoyable supper a crowd of business men ever sat down to in Augusta. If anybody can prepare oysters in more ways, or have more of them—well, I, for one, couldn't stand any more than we had."

There was a general discussion of plumbing conditions in Augusta, a renewal of the association's determination to foster high-grade, modern sanitary plumbing in the work here, and general expressions of an optimistic outlook during the ensuing year. Indeed, the keynote of the meeting was the forecast of the best building year in 1913 the city has ever had.

In the annual election of officers the results were:

President, E. J. Erbelding.

Vice-president, T. G. Brittingham.

Secretary, F. M. Barrett.

Treasurer, T. Miller Morris.

Finance committee, A. S. Hutt, T. M. Morris and O. L. Dobson.

Entertainment committee, E. J. Erbelding, T. G. McAuliffe, T. G. Brittingham and Henry Hutt.

The organization pledged itself to co-operation in the rigid enforcement of the city plumbing ordinances.

F. W. Quinter Re-elected.

F. W. QUINTER has been elected to succeed himself as president of the Master Plumbers' Association of the District of Columbia. At the first meeting of the new year of the association, held Jan. 7 at the Fredonia Hotel, officers elected, in addition to Mr. Quinter, were Charles M. Coberth, vice-president; William Shields, second vice-president; F. C. Stelzer, secretary, and Samuel Artz, treasurer. Mr. Stelzer and Mr. Artz were re-elected. Harry T. Suit was appointed as sergeant-at-arms, and Michael J. McCarthy as State vice-president.

The following committee on entertainment was named: Walter D. Nolan, chairman; Samuel Artz, F. W. Quinter, William Conradis, M. J. McCarthy and P. T. Niland.

Delegates to the national convention of the Master Plumbers' Association, to be held in Philadelphia in July, were named as follows: Walter D. Nolan, Ed J. Hannan, William Conradis, F. W. Quinter, M. J. McCarthy, Joseph A. Herbert, William Koch and Samuel Artz. Alternate delegates appointed are P. T. Niland, William Shields, Charles F. Coberth and Harry T. Suit.

New Porcelain Ware Works in California.

FORTY men arrived at the Southern Pacific depot at Richmond, Cal., on Dec. 31 from Ohio to take positions in the new plant of the Pacific Sanitary Mfg. Co., the new sink and bathtub factory in north Richmond.

These men are nearly all men of family, and some of them brought their families. Others expect theirs later. This is but the first crew of men that will be employed in the new project.

It is likely that a great scarcity of houses and places to live for the families of the men will result.

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NEW YORK, JANUARY 25, 1913.

Revision Demanded by Governor Sulzer in Construction of Fire Insurance Policies.

In a special message to the Legislature Governor Sulzer points out the urgency of clarity in the construction and elimination of extraneous clauses, so that the layman may properly understand his position in case of damage sustained without the necessity of calling in an adjuster or broker. In fact, an entire and immediate revision of the existing form of fire insnurance policy now effective in the Empire State is suggested. The members of the craft who each year upon their vast property holdings pay imposing premiums will be interested in what the Governor has to say. His message in part follows:

The present standard fire insurance policy is filled with perils to the innocent insuring public, and it is now in my opinion beyond dispute that there should be a simplification, at least of the conditions upon which protection against fire in the way of insurance is obtainable.

The standard fire insurance policy of this State contains a mass of technical conditions and provisions that the people find most difficult to understand. Indeed they are so fraught with technicality and ambiguity that the courts themselves, the highest courts of record in the country, constantly differ in matters of construction. This should not be difficult of remedy and the public welfare it seems to me demands that it be remedied at once.

Of course we should not attempt to destroy any reasonable protection that may be claimed for the fire insurance companies, but at the same time I contend that the rights of the insured should not be left, as is frequently the case under the present form of policy, to the charity of the company. The provisions of the policy should be made so simple, so short and so clear that the rights of both are apparent and the interests of both safeguarded.

The State of New York should have the best standard of fire insurance policy in the country.

Motion Picture Shows Now Advertise Plumbing and Other Trade Fixtures.

Throughout the country there is now afforded an excellent opportunity to the members of the craft to bring home to the citizens of various communities the necessity of proper and adequate toilet facilities In Brooklyn, N. Y., the other evening the enterprise of a certain master plumber was exemplified in an attractive advertisement of standard sanitary manufacturing fixtures which were shown upon the sheet in between motion picture studies. The craftsman is to be commended as a pioneer in what will surely prove to be an exceptional method of exhibiting to the people the beautiful fixtures which are really a necessity in the homes. The advertisement referred to was a beautifully colored lantern slide, and we are quite sure that the publicity will result in increased and profitable returns to the manufacturer and installing plumber.

Splendid Method for Disseminating Sanitary Information.

It occurs to us that it might be a splendid idea for Boards of Health throughout the country to adopt the motion picture for the purpose of distributing necessary sanitary information to the public. More especially might this seem important during times of epidemic or contagious diseases. Illustrated views interestingly presented, with or without a lecturer, surely cannot fail to impress the fathers and mothers who are flocking to these shows in increased numbers; and the children, as well, could receive really important hygienic instruction. We would respectfully submit that 15 minutes each evening be devoted to the presentation of lantern slides having to do with sanitation and its ramifications. As a matter of patriotism we are quite sure that the film companies would contribute to the success of the idea, and we know that the motion picture houses might be won over to the proposition, for the educational advantages of these pictures could well be spoken of in the class rooms of the schools and churches.

Personal

CHARLES T. BYRNE, former national secretary of the Master Plumbers' Association, was present during the automobile exhibits in New York City during the past fortnight in the interest of his company, Byrne, Kingston & Co., Kokomo, Ind., largest manufacturers of automobile, marine and general gas engine accessories in the world. Mr. Byrne is about to start for a month's sojourn of Cuba, making his principal stop, naturally, in Havana. When through with his visit to the tropics he will return to the United States via Key West.

ARTHUR P. GOLDSMITH has been appointed manager of the Philadelphia office of the Williamsport Radiator Co., of Williamsport, Pa. Mr. Goldsmith is a popular representative of this concern, having been connected with the New York branch of this concern.

ALLAN W. HAM, New York manager of the United States Sanitary Mfg. Co., Pittsburgh, Pa., has moved his office to 104 W. 42d St. Mr. Ham has added Philadelphia, Baltimore and Washington, D. C., to his territory.

GEO. T. PEARSONS has become identified with the Haydenville company in the capacity of sales manager, and will hereafter devote his entire time to that department. He will make his headquarters at the New York office, 150 Nassau St. George will be calling on you soon to convince you that he has the right goods.

National Convention to Be Held in June.

THE thirty-first annual convention of the National Association of Master Plumbers of the United States will be held in Philadelphia on June 17, 18 and 19. The Bellevue-Stratford has been selected as headquarters for the convention.

Frank B. Lasette Honored at Albany, N. Y., Master Plumbers' Banquet.

FOR nearly 10 years it has been the custom of the Albany Master Plumbers' Association to honor annually the president of the New York State Association with a reception and banquet at the Hotel Ten Eyck in the capital, to which are invited the master plumbers throughout the State, as well as governmental officials of prominence. Governors of the State, lieutenant-governors, corporation counsels, speakers of the Assembly and senators galore, not to forget the assemblymen, usually attend in quantity, so that the annual occasion is a glorious day not only in the history of Albany, but the entire Empire State.

The most recent banquet and reception tendered to State President Frank B. Lasette may properly be said to have been the most successful of them all. In point of numbers it exceeded last year's grand asemblage, and as regards enthusiasm, it was in every sense a record breaker. While the banquet was served at 8:30 P. M., impromptu addresses were still being delivered by the delighted banquetters at 1:30 A. M., which furnished some idea of the continuity of the performance.

The quality of the trade was profusely represented, and the biggest plumbers in the United States were observed at the various tables. The New York City delegation consisted of the following gentlemen, which arrived in their special car, the *Manhattan,* which was tacked on to the 2 P. M. express from New York City on Thursday afternoon. Those who had seats in the luxurious observation car follow: State President Frank B. Lasette, National State Secretary Charles Murphy, State Secretary and President of Manhattan John J. Hannegan, Bart Donohoe, A. S. Gaynor, J. J. Lawler, Eddy Renehan, I. J. Brown, August Hansen, "Billy" Bapst, Trenton Potteries Company; Frank Crotty, Central Foundry Company; James McCullagh, Charles Walsh, Harry Hemlin, T. P. McLoughlin, T. J. Tuomey, Harkness B. De Voe, John O'Neill, James F. Griffin, Morris Jarcho, Jacob Jarcho, J. H. Dunn, I. O. Shumway, Charles K. Catania, J. L. Murphy, P. F. Kenny, Edward J. Brady, John R. Hopkins, John Wegman, Richard Donovan, McLoughlin & Donovan, Edward Hurley and W. G. McCormick, of THE MERCHANT PLUMBER AND FITTER.

Between train arrivals and the hour for the banquet the rotunda and lobbies of the hotel rang with merry laughter as friends from each corner of the State greeted their fellows, and an informal good time was enjoyed by the hundred and fifty or more attenders until the signal was given to climb into the formal dress of the occasion.

The management of the hotel had beautifully draped the banquet hall with flag and bunting decorations, and the effect, however difficult of attainment, seemed an improvement over other years. The raised platform, upon which sat State Secretary John J. Hannegan, State Vice-President Walter Cairnes, State President Frank B. Lasette, Toastmaster James H. Doody, Albany President Albion J. Eckert, Corporation Counsel Edmunds, Frank F. Schimpf and former State President John Moran.

Occupants of the various tables were distinguished members of the craft and traded throughout the State, the names of which we are happy to present below:

FRANK B. LASETTE,
PRESIDENT OF THE NEW YORK STATE ASSOCIATION.

Table 1.—Walter H. Caines, John J. Kavany, Al. C. Kranichfeld, August Ebke, Jr., Fred W. Zander, George H. Drake.

Table 2.—Barth F. Donohoe, Arthur S. Gaynor, Edward J. Renehan, Chas. A. Walsh, Harry Hemlin, Isaac J. Brown.

Table 3.—J. A. Long, Thos. P. McLoughlin, James McManus, James McCullagh, James S. Lawlor, John R. Hopkins, John Wegman, August Hansen, J. J. Donovan.

Table 4.—John E. Dugan, Jas. M. Heatherton, A. A. Du Mond, Frederick E. Fladd, Louis J. Yauchzi, Fred L. Irish.

Table 5.—Frank Crotty, John O'Neill, James F. Griffin, J. Jarcho, M. Jarcho, Jacob Levy, J. D. Gunn, Isaac Shumway, Charles K. Catania.

Table 6.—T. E. Kerwin, Jerry L. Murphy, Harkness B. De Voe, P. F. Kenny, Thos. J. Tuomey, Edward J. Brady.

Table 7.—Frank L. Beyer, B. Jos. O'Donnell, John R. Sheehan, Floyd S. Heddon, L. F. Bannon, John L. Fitzgerald.

Table 8.—Edward J. Flood, Michael D. Reilly, Adolph Fleischman, Wm. C. Schade, James J. Gorman, Horace F. Wescott, Wm. H. Branian, Howard J. Crawford, John J. Britt.

Table 9.—Charles E. Walsh, Ed. P. Kerwin, Jeremiah Kieley, James B. Dempsey, Wm. R. Miller, Wm. R. Smith.

Table 10.—Hanford C. Whitbeck, De Lancey Palmer, De Lancey M. Ellis, Charles Boswell, Wm. Brownlow, Wm. Smith.

Table 11.—Lansing N. De Long, R. T. Horton, John B. Waldbillig, Ed. Ahrens, Thos. A. O'Malley, Edward Hurley.

Table 12.—Thomas F. Nolan, Dr. J. H. Callahan, Ted Moran, M. J. Hawkins, Wm. G. Gloeckner, Wm. G. McCormick.

Table 14.—John H. Moran, Jr., Frank J. Moran, Frank Wade, J. Howard Johnson, Harry Persons, Edgar Kenny.

Table 15.—Frederick H. Gaylord, John Eberle, Adam E. Gray, Thomas J. Dugan, O. C. Vandecar, John Leikhim.

Table 16.—C. Pinkney Jones, Royal E. Smith, Geo. L. Brucker, M. A. Cooper, L. D. Fowler, Joseph O. Stapf, Wm. Robinson, Ed. Van Loon.

Table 17.—The Press table.

Honorary Members.—Mayor James B. McEwan, J. Edward Janes.

Communications regretting circumstances precluding attendance were received from National President Frank J. Fee, who was busy elsewhere upon national affairs; the Honorable Mitchell May, Secretary of State of New York, and "Ted" Moran, whose mother was sick.

Hon. James B. McEwan, mayor of Albany for several terms, and an honorary member of the Albany and Syracuse Mas-

ter Plumbers' Association, addressed the following communication, which was read by Toastmaster Doody, and splendidly received by those present. The mayor's letter follows:

My Dear Mr. Schimpf.—It is a source of deep regret to me that the condition of my health is such that I must forego the pleasure of dining with the members of our association this evening. Among my happiest recollections are those of seeking pleasure in the company of the "Good Fellows" who constitute your "Bunch," and the eminently satisfactory and speedy attainment of the object sought. I sincerely trust that the dinner this evening may be strictly in keeping with the record of "Past Performances," and I shall make it a point to be with you in spirit to see to it that my wishes are carried out. Please extend my kindest regards to all the boys, and believe me, sincerely yours,

JAMES B. McEWAN, Mayor.

The menu presented epicurean ideas of excellence, full cognizance of which was taken by the diners. Some two hours was spent making way with the many succulent and appetizing courses. The selection of viands, with liquid concomitants, was made by Chef Thomas Nolan. For his success of menu construction we cordially extend our felicitations. The "menu" needs no further recommendation than a perusal of same. We append it herewith:

MENU.

Bluepoints.

Vino de Pasto Consomme Madrilene
Celery Salted Nuts Olives
Chateau Dillon Filet of Chicken Halibut, Joinville
Tenderloin of Beef with Mushrooms
Pommes Paille
California Asparagus Hollandaise
Roman Punch
Moet & Chandon White Seal
G. H. Munn & Co., Extra Dry
Extra Dry
Roast Squab Chicken sur canape

RETIRING PRESIDENT JOHN H. MORAN OF THE NEW YORK STATE ASSOCIATION.

Salade Albany
Nesselrode Pudding
Assorted Cakes
Roquefort Cheese
Toasted Crackers.
Apollinaris, Cigarettes, Cigars
Cafe Noir
Music
"The poetical inspirations of sound"
Songs by Members and Guests
Selections by Holding's Orchestra

Toastmaster James H. Doody mentioned the purposes of these annual banquets, which were initiated as a mark of honor to the reigning State president. The only occasion when this was not carried out was when former State President B. Joseph O'Donnell was re-elected for a second term, in which event, he having been previously honored, the occasion was turned into a demonstration for our esteemed national president, T. A. Hill, recently de-

LOUIS J. YAUCHZI, ROCHESTER, N. Y.

ceased. When Mr. Doody mentioned Frank B. Lasette as the distinguished guest of this banquet pandemonium broke loose. Mr. Lasette blushed charmingly in recognition of the plaudits of his friends from all over the State.

Former President John Moran was riotously received, and interestingly referred to the guests from other parts of the State, mentioning names, all of which were applauded. His reference to the sterling services of President Lasette, his earnest discharge of duty, his various travels throughout the State many times for the betterment of the association's interest, was appreciated and applauded.

Corporation Counsel Edmunds regretted the absence of Mayor McEwan, but was glad that he was chosen as the Mayor's alternate. The Mayor had advised him that he would have a good time and could say anything he wanted to. The Corporation Counsel wittily and interestingly discussed the future of the city of Albany, his many humorous, or serious, prophecies being well received. He was a happy and interesting orator, and we hope for his presence upon future occasions.

When Frank B. Lasette was introduced there certainly were ructions. Cheers followed cheers, napkins were waived in the air for five minutes, and a riot of applause and cheering only ceased when the participators were too tired to continue their vociferous demonstration. The young, handsome and popular State president felicitated the diners upon their presence, and stated his appreciation of the honor paid him. He referred to the pleasure he obtained from his services in behalf of his associates throughout the Empire State, and while he was obliged to travel and considerably neglect his business, the recompense which he received in the plaudits and praise from his confrères more than compensated him for the losses which his continued absence from his office sustained. He encouraged the members of the association to stick to the ship of State—to continue their enthusiasm, so that the splendid association over which he had the honor to preside might improve and advance as the years rolled by. He referred to the absence from the festive board of our departed friend, T. A. Hill, whose name was received in the silence of respect, and as well devoted some consideration to the valiant services of his predecessors, whom, he said, it is an honor to follow in this important and dignified office.

Former President Bart Donohoe referred to the services of that old warrior, Jones Rossman, who served some quarter of a century ago, as State president. He mentioned as well the names of those former presidents, Messrs. Beyer, Fladd, Moran, Dugan and Westcott, whose able contribution to the cause is being so well developed and furthered by President Lasette and the men to follow him. Whoever is president, said he, will have our united and harmonious support.

Former President Rossman referred to the earlier history of the association. He spoke of the veterans who have gone forever, and those others who are still active in the fray. Said he, "We may die, but we never resign." Mr. Rossman's address was lengthy and interesting and was vehemently applauded.

The historian of the craft, B. Joseph O'Donnell, explained why Albany was not a Dutch city. His reference to the grant of William of Orange to the Duke of Lemons, and other explorers, was interestingly set forth. For ten or fifteen minutes the class in geography was attentive

THOS. F. NOLAN, ALBANY, N. Y., EX-PRESIDENT LOCAL ASSOCIATION.

while Professor O'Donnell gave it lessons upon the proper history of the second city, so far as age is concerned, in the State.

Our esteemed friend, Fred. Zander, was "platformed" and for ten interesting and happy minutes he spoke of the success which did not meet the Turkish army in its recent engagements because of its German instruction. This was a real masterpiece, and was excellently rendered by this trade elocutionist.

J. J. Hannegan, the State secretary, stated that he was a worker, and not an

orator. He mentioned the various duties with which he had happy connection during his term of office; and stated as well the success which met the efforts of President Lasette and himself upon their many tours of the State. This is a mighty team, and they have garnered many new adherents to the master plumbers' association's cause during the past seven or eight months.

Fred. Fladd, former State president, was well received, and for a few minutes expressed his pleasure at being present to do his good friend Lasette honor. He feelingly referred to the sad and untimely death of our former leader, T. A. Hill, and stated that if there is a spirit world and hereafter, of which he was sure, he was positive that the spirit of T. A. Hill was present at this banquet.

Frank Beyer, former president, expressed his appreciation of the forensic efforts of the orators, and the wealth of good things at the banquet. He was always glad when the Albany banquet was announced, because he prepared himself sufficiently in advance so that his affairs might permit his attendance.

George L. Brucker, Utica, warmly congratulated President Lasette and the Albanians for presenting so splendid a function, and expressed his delight at the interesting and instructive addresses of the governmental and trade orators, who intelligently discussed their set and impromtu toasts.

J. L. Murphy, partner of President Lasette, was introduced and escorted to the platform, where he addressed the members upon what he considered a proper conception of association duties. Loyalty to the association and a regular attendance at all meetings were absolutely essential to the success of the organization, said he.

Trade paper representatives James M. Heatherton, Joseph Graham and W. G. McCormick, of the MERCHANT PLUMBER AND FITTER, addressed the assemblage upon invitation of the chair.

Assemblyman Owen Kiernan referred to the banquet as an "academy of fun," and extended a cordial invitation to all present to visit the Assembly as his guests upon the morrow.

Newly-Elected President Albion J. Eckert, of the Albany Association, celebrated his first banquet in this capacity. His introduction and welcome of the guests and reference to State President Lasette were interestingly set forth.

The impressive feature of the banquet was the silent standing toast, which was drank to former National President T. A. Hill. The toastmaster was requested to communicate this fact to the widow and family of the deceased.

Philadelphia Association Holds Annual Entertainment and Banquet at Hotel Walton, Philadelphia, Pa.

ONE of the many successful annual entertainments and banquets which the Philadelphia Master Plumbers' Association has extended its friends, guests and members, with their families, was held at the Hotel Walton, Philadelphia, Pa., upon Monday, Jan. 27, 1913. Inasmuch as their was a delightful menue from which to select an abundance of good things, the 380 attendants were in splendid form to attend to the dozen or more dances which were entrancingly presented by a really fine band. The particulars of this famous occasion will be fully presented in our forthcoming issue.

Lehman's Hall, Baltimore, the Scene of Another Successful Master Plumbers' Function.

JANUARY 27, 1913, was a happy day in the annals of Baltimore plumberdom, for on the evening thereof the annual reception and dance of the Association of Master Plumbers of the State of Maryland was formally and successfully celebrated. Master plumbers from various points in the State, accompanied by member of their families, joined the five or six hundred Baltimoreans who were present to enjoy the good things provided for them by the energetic and painstaking committee, of which August V. Eidman was chairman. Hon. John Trainor, national director, and a former national president of the Master Plumbers' Association, received prominent guests from all over the country. A complete description follows in our forthcoming edition.

However wretched a mortal may be, he is still a member of the common species.—Seneca.

MOTT'S PLUMBING

IN Mott's "Silentis" and "Silento" Closets the noise of flushing has been reduced to a minimum.

Running water cannot be further silenced and still produce a sanitary flush.

The bowls and seats are extra large; the jet hole is concealed; drain plugs allow of removing water from bowl without disturbing soil pipe connection.

The Sanitary-Perfect-Screw-Connection (patented) insures an air-tight, water-tight and gas-tight connection and dispenses with unsightly bolts.

QUIET-ACTION CLOSETS

Since the introduction of "Silentis" Closets—over twelve years ago—they have been installed in the finest residences throughout the country.

Ask for booklet on Quiet Action Closets.

THE J. L. MOTT IRON WORKS

1828 *EIGHTY-FIVE YEARS SUPREMACY* 1913

FIFTH AVENUE AND SEVENTEENTH ST., NEW YORK

SHOWROOMS—New York, Boston, Detroit, Chicago, St. Louis, Denver, San Francisco, Washington, D. C., San Antonio, New Orleans and Montreal.

BRANCHES — Boston, Chicago, Philadelphia, Detroit, Minneapolis, Washington, St. Louis, New Orleans, Denver, San Francisco, San Antonio, Atlanta, Seattle, Portland (Ore.), Indianapolis, Pittsburgh, Cleveland, O.; Kansas City, Salt Lake City.

CANADA—Mott Company, Limited, 134 Bleury Street, Montreal.

Iowa State Association Meet at Sioux City.

SIOUX CITY was the scene of the annual meeting of the Iowa State Association of Master Plumbers on Jan. 14, 15 and 16. Although the convention city was situated at the extreme end of the State, the delegates flocked in large numbers, showing that the interest taken in plumbing affairs by the plumbers throughout the State is on the increase.

Strictly speaking, the meeting was a business one. Among the bills now before the Legislature which were favored by the convention was one providing for examination of plumbers and the regulation of the installation of plumbing. This involves a State examining board.

The convention also favored a plan which would eliminate the apprenticeship requirements now in vogue. In lieu of this a plan was suggested whereby a man may enter the profession just as soon as he is qualified to do so without regard to the time of service as apprentice.

Another bill now before the Legislature which was condemned as too drastic and unfair to the manufacturer and employer is the employers' liability bill. The delegates were opposed to the bill because it provided no protection to the employer.

A resolution was adopted changing the term of the board of directors, viz.: that three members of the board will be elected for three years, three for two, and three for one, instead of the entire board being chosen for one year, as heretofore.

Organizing Secretary R. E. Knauer, in his report showed a total of 59 towns now with local organizations, a gain of 19 during the past year.

President R. Knauer, in his report, spoke of the splendid progress that had been made in the association during the past year, and assured the delegates that the prospects were even brighter for 1913. Among the visitors at the convention was E. B. Denny, president of the National Association of Master Steam and Hot Water Fitters.

Mr. Denny was introduced to the delegates, and among other things stated that the plumbers and steam fitters of the country needed a good old-fashioned religious revival. "It isn't the ignorant, half-trained man who ruins prices," he declared, "but the man who is reckless and takes chances in his estimates. We must be conscientious in making estimates and honest in ourselves or we are certain to lose money and to demoralize prices. That's what I mean by a religious revival. Let's use a little common sense in these matters."

J. B. Cunningham, secretary of the Nebraska State Association, also made a short address, urging co-operation between the plumbers and steamfitters.

The election of officers for the ensuing year resulted as follows:

President, H. B. McCarton, of Dubuque; vice-president, W. O. Ewinger, of Burlington; secretary, R. A. Ellis, of Waterloo; treasurer, W. D. Hogan, of Sioux City. Directors for three years, John T. Thomas, Des Moines; W. D. Hogan, Sioux City, and John King, Keokuk; for two years, John Gustin, Fort Dodge; J. F. Fenton, Cedar Rapids, and J. M. Wilson, Washington; for one year, R. A. Ellis, Waterloo; William Ewinger, Burlington, and H. B. McCarton, Dubuque.

The battle for the meeting place for 1914 was between Keokuk and Burlington, but Keokuk was handed the decision.

A touching incident occurred at the convention when William Ewinger, the curate of the Burlington association, paid a glowing tribute to Robert Clayton, of Davenport, the mentor of the association, and probably the oldest plumber in the United States.

Mr. Clayton was so overcome with emotion at the eloquence of Mr. Ewinger that he was unable to reply, but his embarrassment quickly passed as the entire convention filed past grasping him by the hand and congratulating him for the good work done in the past for the association.

High Jinks at Trenton.

THE factory and sales force of the Trenton Potteries Co. held its annual "get-together" dinner at the Trenton Country Club Jan. 11, 1913.

It was a grand affair and one thoroughly enjoyed by all who participated in the "doings." As it is utterly impossible for us to elaborate on the dinner and entertainment, we publish the entire program, which will give our readers a better insight of what and how it happened.

MENU YOU.

Oysters on the Half Shell.
Lemons. Tabasco Sauce. Tomato Ketchup.
Oyster Crackers. Uneda Biscuit.
Soup.
Don't know what kind—that's for you to guess.
Olives. Almonds. Bread and Butter.
Casserole de Crabbe.
Turkey from Texas.
Cranberry Sauce. Potatoes. Stewed Celery.
EDITOR'S NOTE—*The above item makes this menu look more like a dinner.*
Ice Cream.
Cake. Coffee.
Cigarettes. Cigars.
NOTE—*We hope you get all this menu says.*

PROGRAM.

We sure hope this crowd can talk better than it can perform. Our local talent mostly had stage fright when asked to entertain.

Pianist .....Goldenbaum
Charley will translate all the Dutch operas for you, so get the eggs ready.

Solo.....J. V. Springer
Think of it—and we can hardly get John to say a word around the office—let alone sing!

Recitation .....Ziegle
A. K. Young can't stop this shipment.

Piano Duet.....Springer-Goldenbaum
If you can stand this we'll get you on the next—Desperate Desmond!

Solo .....Bloor
Sit tight, boys, he can soar higher than this.

Humorous Recitation.....Sine
Personally, we've never noticed anything humorous about Sine. He seemed such a pathetic little thing when he told about his rescue of the fair, fat and 40 maiden.

Solo.....J. R. Allen
The human Caruso—no, he sings bass—but we're just making comparisons.

Quartette .....Kise-Bloor-Cruser-Weber
This one last scream and then
GOOD NIGHT.

"Among Those Present" were: The Boss, Our Patentee, The Overseer of the Poor, The Paymaster for Same, The Sales Extinguisher, The Brow-Beater Upstairs, Mr. U. B. Damn, Jr., the big noise; U. B. Damn, Jr., and his Assistants from the Empire: "Union" Wooten and Wildblood with Ziegler on the side; Skirm from New York (Ave.) Cooper and Bellerjeau (also); Anderson, from the Cemetery, with Reese and Appleton—also from the region of the dead; Bawbee Hamilton, with Holloway and Reedy, comprising an "Ideal" brigade; The Big, Little Timber and his branches, Spicer and Clayton; The Assisting Sales Extinguishers, Sentimental Sine, Pewee Kise, Corporation Titus, Inspector Donovan, Bass Weber and Wild Bill Bapst; "Hinglish" Walker, with his closettes, Bloor and correspondents; W. G. Crusrer, buyer of junk; Morgan and S. Cruser, receivers for same; Stan Brown, boss mechanic; Neale, the crane; Invoice Fisher and Egg Stuckert, Bookworms Appleton and Lanning, Dutch Goldenbaum, the china underwriter; Caruso Allen, the porcelain order writer; Detectives F. Allen and Moore, the top floor corpses, Fleming, McCardell, Bloom, Gamble, May and Phillips; Lansing and Van Sciver, the comic artists, and the guy who had the nerve to write this.

Executive Board of the New Jersey State Association of Master Plumbers.

THE executive board of the New Jersey State Association of Master Plumbers held a meeting Jan. 10 in the rooms of the local branch, 224 S. Warren St., Trenton. It was an open meeting and about 75 master plumbers were present from various parts of the State.

The board, which was called together by State President Turner, is composed of the following members: George Turner, State president, Asbury Park; George O'Neil, Paterson; Edson Garrabrant, South Orange; Harry Farrell, Camden; W. H. Meslar, Morristown; L. A. Menagaux, North Hudson; H. F. Baillet, Newark, and A. Selden Walker, Orange.

The afternoon was devoted to the discussion of business of the local and State associations. At the adjournment of the afternoon meeting the members went to the Hotel Sterling, where luncheon was served. In the evening there was a meeting and smoker at the S. Warren St. rooms.

Addresses were given by several of the State officers and National President Frank Fee, of New York, and ex-National President A. Selden Walker, of Orange.

Duluth Master Plumbers Elect Officers.

AT the regular annual meeting of the Master Plumbers' Exchange, of Duluth, Minn., the following officers were elected for the ensuing year: President, F. H. Farrell; vice-president, Roy J. Harker; secretary, Fred Deboer; treasurer, J. T. Stack.

EXECUTIV E BOARD OF THE NEW JERSEY STATE ASSOCIATION OF MASTER PLUMBERS.

Brooklyn Association Holds Most Successful Ball in Its History.

WITH some fourteen hundred persons of both sexes gathering at the portals of popular Prospect Hall on Tuesday evening, Jan. 14, 1913, it was early seen that this reception, vaudeville and ball of the Association of Master Plumbers of the Borough of Brooklyn would easily excel all others in respect of attendance and general success.

Crowds approached the hall one hour in advance of the time scheduled for the vaudeville program so that good seats might be secured from which to watch and enjoy the classy performers who were secured by the committee on entertainment. By actual count 1,000 persons had entered the hall by 8 o'clock, and between then and the time for the first dance several hundred others had found seats in the balcony or gallery.

The grand march, which was started at midnight, was led by President D. J. Donovan and Miss Anna Donovan. The floor directors prompted some pretty manœuvres, the successful accomplishment of which earned unstinted applause from those who were not engaged in the march. Approximately 150 couples engaged in the march, and the figures in which the ladies led the gentlemen were unique and well received. When the marchers came down the floor 16 abreast, the magnificent appearance of the ladies, who could not have done better had they rehearsed the figure, ably flanked by their manly escorts, was the

JOHN SANDS, EX-PRESIDENT BROOKLYN MASTER PLUMBERS' ASSOCIATION.

signal for an outburst of applause and approbation spontaneous as it was sincere.

It is the rule of the world that all good things must terminate sooner or later, and when, after parading the floor for fully a half hour, the fanfare of trumpets announced the beginning of the program of dancing, the ladies and gentlemen fairly flooded the floor in their enthusiasm and desire for the mazy waltz and seductive two-step. Professor Linder had arranged 24 dances, and despite the length of the program, was not stinted in the encores, which were repeatedly called for.

Praise in full measure is due the various committees and the directors thereof for the splendid manner in which this successful and enjoyable function was conducted. The names of the gentlemen more especially interested in the management of the affair and the committees which they graced follow:

Officers.—Dennis J. Donovan, president; Matthew J. Kennedy, vice-president; Louis P. Gfroerer, treasurer; James T. Keenan, secretary; Louis Frisse, financial secretary; Ignatius P. Byrne, sergeant-at-arms; Martin J. Hayden, Marshal. Board of Directors.—William Eierman, chairman; Thomas E. O'Brien, Michael F. Gleason, Edward MacDonald, John W. Sands. Committee of Arrangements.—Matthew J. Kennedy, chairman; Michael F. Gleason, William Eierman, James T. Keenan, J. Louis Bosch, James Jarcho, Patrick H. Gleason, Charles F. Mentzinger, George F. Tracy, Joseph F. Corcoran, James Johnston, Dennis J. Donovan, Edward J. Belford, Thomas E. O'Brien, Robert E. Dingman, William A. Crane, Frank J. Bryan, Martin J. Hayden, Louis Frisse, Michael J. McGrath, Lewis A. Deiser, Jr., Samuel J. Corcoran, John J. Dixon, secretary and treasurer. Floor director, Samuel J. Corcoran; assistant floor directors, Ignatius P. Byrne, Martin J. Hayden; floor committee, Richard L. McChesney, Thomas F. McEnaney, Robert A. Austin, Joseph P. Killian, Frank L. Steele, Harry Voletsky, Michael J. McGrath, William A. Nugent, Frank J. Bryan, Eugene A. Lambert, William S. Hearne, James Johnstone, John Gannon, Louis Kayfetz. Reception Committee.—Thomas E. O'Brien, chairman; Robert L. Cranford, Arthur J. O'Keeffe, Michael F. Gleason, William Eierman, William A. Crane, Patrick H. Gleason, Louis Frisse, Frank Hogan, Jerome Jung, Charles F. Mentzinger, John F. Abernethy, Edgar C. Byron, Thomas H. Radcliffe, Charles Schwenker, James L. Meeks, William Till, Dennis J. Donovan, Edward MacDonald, Edward J. Belford, Lewis A. Deiser, Morris Donin, J. Louis Bosch, Martin F. Mulligan, Harry M. Noble, James Jarcho, Herman H. Hoffman, Paul Finkensieper, David Nechamkus, John W. Hughes.

In box 2 were the guests of the association, among whom were noted National President Frank J. Fee, National Secretary Charles Murphy, New York State President Frank B. Lasette, President Joseph Theiss, of the Bronx association; William J. Flynn, former president of the Bronx association; former President Bart F. Donohoe, of the Manhattan association; Jack Hopkin, Manhattan; Charles W. Frean, secretary of the New York Plumbing Exchange, Inc., and other persons of quality. The ladies comprised Mrs. Frank B. Lasette, Mrs. Charles Murphy, Mrs. B. F. Donohoe, Mrs. Jack Hopkin, Mrs. William J. Flynn, all charmingly gowned. Many visiting parties approached this famous box and were introduced to the National executives by President D. J. Donovan and members of the various committees.

M. F. Gleason, wife and party occupied box 4. John W. Sands, wife and Miss Veronica Sands with party were in box 6. Louis Frisse, wife and party occupied 8. J. J. Keenan, wife and party were in

MATTHEW J. KENNEDY, VICE-PRESIDENT BROOKLYN MASTER PLUMBERS.

box 10. Messrs. Voletsky and Jarcho, their wives, and a large party of friends of both sexes occupied box 12. In No. 16 James L. Meeks, Christopher Meeks, with members of their families, entertained their friends. J. J. Johnston, with an interesting party of friends, occupied 18. Thomas F. McEnaney, with a party of friends, was active in No. 20. Messrs. Cranford brothers occupied box 22. No. 24 was seen to hold M. Dumey and a happy party of his relatives and friends. F. Steele, with a choice party of chosen spirits, entertained in 26. William J. Bloeth, with friends and family, received their many visitors in 27. Joseph F. Corcoran, wife and friends were in 25. Messrs. Arnold brothers entertained in 23. Messrs. Wolf and Dingman, with a party of friends, were in 21. Messrs. Kayfetz brothers, with an interesting party of friends, were in box 17. Messrs. Donnelly and Quinn, with members of their families, entertained in box 15. THE MERCHANT PLUMBER AND FITTER box was occupied by Mr. and Mrs. John H. Parker, Mr. and Mrs. William G. McCormick, Mr. and Mrs. William J. Marshall, and several members of its staff. National, State and local officials visited us, and we are grateful indeed for their sympathetic cooperation and encouragement. "Billy" Eierman, with a number of his charming daughters and their equally charming

friends, were occupants of No. 11, and they enjoyed themselves immensely. "Bill" says the grand march is only for the very young or the very old. Those in the prime of life, quoth "Bill," have little use for this diversion. Hon. Matthew J. Kennedy, vice-president of the organization and the chairman of the committee, with Mrs. Kennedy and several friends of consequence, entertained in No. 7. President D. J. Donovan, Miss Anna Donovan and party of friends occupied box 5. Thomas J. O'Brien, Miss O'Brien and members of the United Plumbing Co., including Edward Belford and family, entertained in No. 3.

Box 1 was reserved for the governmental guests of the association. President Steers of the borough; Public Works Commissioner Pounds; Superintendent Taylor, of the Sewer Department; Superintendent Trumbridge, of the Highways; Superintendent Woody, Public Buildings; Joseph Powers, secretary Public Works Commissioner; Commissioner of Bridges Arthur J. O'Keeffe; Congressman Daniel J. Griffin; Colonel Kline, Vice-President of the Board of Aldermen; Senator William Heffernan, and other prominent governmental officials were present during the evening's festivities. Telegrams were received from Congressmen Calder and Fitzgerald regretting cause for their absence and extending their feliciations.

A large array of plumbing inspectors were observed. These included Michael Sexton, Louis Benson, Charles Beck, Joseph Hearns, Abe Harley, M. McBride, Harry Birkett, Jacob Deigan, Walter Cairnes, Joseph Boyle, Charles Cameron, William K. Jones, P. J. Keegan, John Lennon, Harry Smith, Peter Woods, James Doody, while the Building Department was represented by Thomas Muldoon, George Bowles, John Hamm, George L. O'Neill, accompanied by Masters George L. O'Neill, Jr., and Francis O'Neill. Other representatives of the Building Department present were Harry Model, George McCloskey, Julius Oberley, Arthur Oberley and Thomas Gorman.

The Knights of Gelena were splendidly represented by members of the old guard. President John J. Gannon was surrounded by those stalwart sanitarians, P. J. Gleason, George Tracy, and other notables whose presence added dignity and charm to the occasion. For gentlemen who have served for 20 years and upwards in the noble cause of sanitation, their youthful and magnetic presence certainly points to the plumbing and steamfitting trade as a means to longevity.

Manufacturing, supply and specialty interests were generally and abundantly represented. The following gentlemen were personally met by our representatives:

E. A. July, Loomis-Manning Filter Co.; Arthur M. Crane, New York Continental Filter Co.; George E. Heim, United Lead Co.; Charles Agneau and "Jim" King, National Lead Co.; M. K. Blackwell, Wolverine Brass Works; James Winans and Harry Pohlman, American Plumbing Mfg. Co.; John J. Delany, Ed Griffin, A. B. Delany, Ed. Delany and James Caffrey, Coyne & Delany Co.; L. W. Cokefair, of E. N. Cokefair; Raymond Brown, Jiffy Fire Hose Rack; William M. Henderson, Frank Crotty, John Kitchen, S. Orrs and Jere Donahue, Central Foundry Co.; C. S. C. Rock, Flushovalve Co.; H. Hellwig, Chris Klem and William F. Thompson, Colwell Lead Co.; William Steen, F. N. DuBois Co.; John Coleman, John Simmons Co.; Henry Gleichman and A. E. Cosgrave, Central Brass Mfg. Co.; E. A. Twiss, United Brass Mfg. Co.; Edward Ryder, William J. Field and Robert Clark, Ronalds & Johnson Co.; Messrs. McLaughlin and Donovan, of McLaughlin & Donovan; Arnold Behrer, Jr., and "Bob" Smith, Arnold Behrer & Sons; Thomas J. McCormick, David Carey and Percy Rollings, Smyth-Donegan Co.; Frank Bedell, R. I. Money-

BROOKLYN MASTER PLUMBERS, WITH THEIR LADIES AND GUESTS, AS THEY APPEARED IN THE GRAND MARCH AT PROSPECT HALL.

penny and N. N. Moneypenny, Alberene S. S. Co.; Hon. T. M. De Laney and J. L. Fox, T. M. De Laney & Co.; Frank W. Silkman, Fords Terra Cotta Works; S. B. Whitney, Old Dominion Soapstone Co.; Al Thill and T. F. O'Connell, Albert P. Thill Co.

NOTES.

Ketiring President John W. Sands was presented with a case of silver from the Gorham Mfg. Co., famous silversmiths. The contents were beautifully encased in a mahogany box. There were 137 pieces, many of which "John" promised to try on his liver and bacon in the morning.

"Jim" Winans imported from his tobacco plantation some special longitudinal weeds which had been built into cigars of a foot and a half in length. For a while it seemed as if the members of the association were smoking away at miniature telegraph poles. Closer inspection, however, proved this conclusion to be erroneous.

A word as to the floral decorations. "Matt" Kennedy concluded that they were the best ever. Evanescent and ethereal blooms in the majority of cases, but the rarest exotics to be gathered from the horticultural exhibits. "Matt's" explanation of these choice plants defies description.

While it is the spirit of the occasion, where brotherly love is cemented and broadened that enthralls and enthuses, we must also look to the material side of the event just brought to so successful a close. And in this connection we wish to state that the reception and ball of the Brooklyn association was financially the most successful in its history.

Annual Meeting of the Wisconsin State Association.

THE nineteenth annual convention of the Wisconsin State Association of Master Plumbers was held in the Elks Club, Milwaukee, Jan. 15 and 16.

The convention was opened Wednesday morning, Jan. 15, at 11 o'clock, by President George F. Reeke, of Green Bay. The president emphasized the importance of having the delegates pay strict attention to their duties during the sessions, and ended by introducing Mayor G. A. Bading, who, in an enthusiastic and hearty manner, welcomed the master plumbers to Milwaukee and presented them with the freedom of the city.

F. Kuetemeyer, president of the Milwaukee association, was then introduced and welcomed the delegates on behalf of the Milwaukee members. He spoke of the progress made by the local association, and stated that Milwaukee had a membership of 120 at the present time.

In response President Reeke verified the statement as to the strength, loyalty and good-fellowship that existed in the Milwaukee association.

The following committees were then appointed:

Auditing—B. J. Laughlin, Antigo; D. Polacheck, Milwaukee; C. E. Snyder, Janesville; N. P. Molter, Wausau; D. Osborn, Beloit; Hugo Lippert, Milwaukee.

Resolution—P. H. Murphy, Milwaukee; George Mueller, Oshkosh; L. J. Schoenleben, Racine; H. C. Horstmeyer, Madison; S. V. Hanley, Milwaukee.

Grievance—F. E. Green, Janesville; Emil Henoch, Milwaukee; Otto Junck, Sheboygan; F. L. Haertl, Neenah; J. H. Phelen, Manitowoc.

Credentials—Walter Dusold, Milwaukee; C. H. Mayer, Plattsville; J. A. Trane, La Crosse.

A letter from National President Frank J. Fee was then read expressing regret at his inability to be present and asking the co-operation of the Wisconsin master plumbers in securing the passage of a Federal act entailing the separation of plumbing contracts from general contracts in Federal work.

W. H. Halsey, of Milwaukee, a member of the National Board of Directors, spoke briefly on the fact that as the mid-Winter meeting of the Board of Directors would not be held, the expenses saved would be devoted to the assistance of State officers in their work.

Frank Farrell, of the Duluth, Minn., association, was introduced, and spoke of the good work being done in his State by his State asociation.

A communication was received from W. W. Hughes, president of the Minnesota State Association, giving some good advice to the Wisconsin boys.

A motion was made by Treasurer F. E. Green that a committee be appointed to attend the Minnesota State convention, which was unanimously carried.

Mayor Bading, who is a member of the Lake Shore Sanitary Association, then made an interesting address on sewage disposal. He said, in part, that Milwaukee polluted its water supply by throwing all its sewage into its source, the method being that all waste matter was dumped in the lake within three miles of the shore. However, there was a project under way, the septic tank system, that would entail an expenditure of $15,000,000. Experts had made a thorough examination of the proposition and the reports were before the city authorities for their perusal. He said that a carefull survey of the water had been made, and was found to be polluted three miles off shore.

He made a strong appeal to members to make a special effort to start an organization that would endeavor to bring about the means of passing laws to remedy this deplorable condition, and hoped that in the near future an educational movement in this direction would be started in the city of Milwaukee. On leaving Mayor Bading was given a rising vote of thanks and three hearty cheers for his rousing speech.

In response President Reeke said that members must have profited by hearing this vital talk, and complimented Mayor Bading on the aggressive work that he had done during the past in an effort to pass sanitary laws. He hoped that the Mayor would be with them in Madison within the next few months to help in the passage of the new plumbing law.

The afternoon meeting opened at 2:30 o'clock with the receiving of reports of the credential committee, after which the roll-call was called by Secretary Ryan, showing the following delegates present:

Appleton—W. S. Patterson & Co., Ryan & Long, R. Wenzel.
Baraboo—J. Arnott, O. Schadde.
Beaver Dam—J. J. Neuman, B. Shepard.
Beloit—Zimmerman & Osborn, Sanitary Plumbing Co., Paul A. Wolter, Spickerman & Bratley.
Berlin—Jos. P. Lennon.
Bloomer—J. O. Nordin.
Brodhead—Brodhead Hardware Co.
Burlington—A. H. Mueller.
Chippewa Falls—P. L. McQuillen.
Clinton—H. F. Dallman.
Delavan—Ronk & Searles.
De Pere—Ruby & Warren.
Eau Claire—Eau Claire Cornice & Heating Co., Grosvold-Bartingale Co., W. H. Heidman.
Elkhorn—Magill Bros.
Evansville—F. A. Baker & Co.
Fond du Lac—D. Ahearn & Son, Ahearn-McCoy Co., H. J. Hyde, Sanitary Plumbing Co.
Grand Rapids—J. E. Farley, W. F. Hess.
Green Bay—Brehme & Delforge, Edward Garot, C. Hansen & Co., George F. Reeke, J. Thomas & Sons.
Janesville—C. E. Cochrane, George S. Clemmens, Fred E. Green, Chas. Snyder.
Jefferson—Puerner & Bienfang.
Kaukauna—Geo. Kespert, Jr.
Kenosha—Chas. H. Goodman, Kaelber & Kraft, E. J. Sullivan.
Kiehl—J. M. Duecker.
La Crosse—Baker & Niebuhr, F. M. Bronson & Son, Ratz & Marquardt, Thill, Manning & Whalen Co., J. A. Trane.
Ladysmith—P. A. McQuillan.
Madison—H. C. Horstmeyer, A. Metz, Schwoegler & Bliss.
Manitowoc—J. M. Phelen, A. H. Dummer.
Menasha—Menasha Plumbing & Heating Co.
Menominee—A. F. Schoenoff.
Milwaukee—J. H. Bechtel, Wm. Beck, J. Belz, Paul Buckethal, W. C. Boettcher, E. Borkenhagen, Jos. Brah, Roy Buddinger, Dearsley Bros.; E. Diel, P. T. Dettmar, E. Downer, W. W. Dusold, W. H. Eagan & Co., Wm. Esser, J. J. Fischer, C. J. Fox, L. R. Friend, J. Gill, F. A. Goll, W. E. Goodman, W. H. Halsey, S. V. Hanley, Wm. Huebner, P. Jensch, F. Julien, Jos. Junek, E. F. Kietzman, W. Kravanger, L. L. Kurczynski, F. C. Keutemeyer, E. A. Kuttig, Lindemann & Schumann, Chas. Lindner, H. A. Luedke, A. J. Maag, Machesky Bros., A. Martin, Jos. Massino, A. J. Meloy, J. Mergenthaler, J. Mollemkopf, M. Mueller, P. H. Murphy, Louis Neaher, F. Neiman, R. T. Neugbauer, M. O'Leary, Frank P. Pfannenstiel, D. Polacheck, J. E. Robertson, F. J. Scheurell, R. W. Schier, J. Schuh, F. M. Schwantes, L. Soergel, Stemper Bros., D. Stern, F. Theis, W. H. Theis, Thill Bros., Thompson & Harriman, M. Van Roo, C. Voelz, Herman Wegner, J. A. Weisner, H. Welters, Emil Henoch, M. Wink, J. Wittig, H. Weber, O. P. Zimmerman.
Monroe—Monroe Plumbing & Heating Co., E. N. Churchill, Niles & Hartnett.
Neenah—F. L. Haertl.
New London—W. S. Patterson & Co.
Oconomowoc—Welch Bros., E. A. Kersten & Co., Smith & Meadows, The H. Lorleberg Co.
Oshkosh—Martin J. Kelly, P. J. Maus, F. J. Merten & Co., Mueller Bros., Staudenraus & Thayer, Toner Plumbing & Heating Co.

Racine—O. H. Beecher, Albert Brunk, O. C. Davis, Dickert Bros., Fred C. Fair, John Feiner, T. M. Gleason & Son, Chas. Kark, Wm. Leitler, W. R. Pugh, W. W. Rasmussen, Smollen & Schoenleben, West Side Plumbing Co.

Platteville—C. H. Meyer.

Port Washington—J. P. King.

Plymouth—F. L. Kurth, Rhode Bros.

Reedsburg—Aug. Siefert Hardware Co.

Sheboygan—E. J. Aldag Co., Honold Bros., Huebner & Co., Otto Junck, Koepsell Bros., Louis Sonntag, Vowinkel Sons Co., Sievers & Rademacher, Zuchelder & Wunderlich.

South Milwaukee—Megow & Wallace, V. J. Robb.

Stevens Point—J. B. Sullivan & Co.

Sparta—N. F. Palen.

Stoughton—W. O. Harvey, A. S. Thompson.

Watertown—O. Biefield & Co., Doer & Loeschinger, G. J. Russell, A. H. Kusel, Schlueter & Kuper.

Waukesha—D. F. Atkins, A. A. Andrews, Brewer & Jones, J. J. Klock.

Waupaca—F. D. Burges, Adolph E. Dahm.

Wausau—H. J. Halder, Hett & Molter, E. L. Pine, Raudschel & Lietz, A. B. Weeler & Son.

West Allis—Blodgett, Smith & Co., Polacheck & Johnson.

West Bend—A. G. Fuge Hardware Co.

In the course of his official address President Reeke said that the association was benefiting greatly from the work of the district organizers. He advocated the co-operation of members of local associations with the organizers so that the good work would go on independent of the direct effort of the district organizers, the board of directors or the president.

The secretary's 1912 report showed on the roster the names of 46 new members, the total number being 394, of which Milwaukee was credited with 116. A certified check produced showed a bank balance of $1,796.92.

A Committee on Costs, consisting of Charles H. Goodman, of Kenosha; J. McCoy, of Fond du Lac, and W. Helstrom, of Eau Claire, were assigned to prepare a report on the average cost of running a plumbing shop in Wisconsin, to be secured from the data submitted by master plumbers of the State.

W. A. Decker, of Grand Rapids, then gave an address on loyalty. He stated that loyalty in all its branches was an important thing to the master plumbers of the present day. Loyalty to themselves, to their associations, to their trade papers, to the wholesalers and manufacturers and to all whom they associated with was a thing worth studying and practising. He urged that more attention be given to the trade papers on account of the strenuous work they did on their behalf.

An executive session was held from 2 to 5 o'clock p. m., after which the following officers were elected for the ensuing year:

President, S. V. Hanley, Milwaukee.

Vice-president, George F. Reeke, Green Bay.

Secretary, Louis Sonntag, Sheboygan.

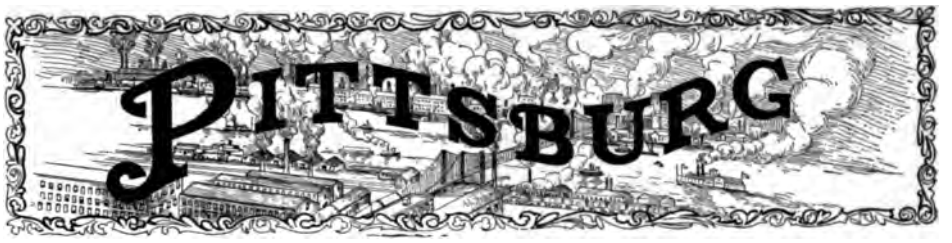
Treasurer, F. E. Green, Janesville.

Delegates to the national convention, George F. Reeke, Green Bay; P. Ryan, Appleton. Alternates. Charles Snyder, Janesville; George Mueller, Oshkosh.

President-elect Hanley paid special tribute to the former president's good qualities, his aggressiveness and untiring energy in the cause of the association. "The reason," said Mr. Hanley, "that I accept the presidency is that George F. Reeke is vice-president, for I feel that a Dutch and Irish combination should be the means of making the association prosperous and active throughout the year."

A special vote of thanks was extended to the Milwaukee local association, Mayor Bading, W. A. Decker and the trade press.

The convention then adjourned *sine die*.



THE Pittsburgh Master Plumbers' Association has appointed a committee to get up a scheme of local organizations throughout the Pittsburgh district with representation at a central body, somewhat after the plan that is so successfully carried out in New York City.

The committee that has this work is composed of, F. J. Hanley, chairman; W. H. Rowswell, John B. Paul, Robert Henderson, A. J. Zillioux, Harry Thoma, David Dudgeon, Harvey Lewis, Jr., Reynold Busse, Hugh M. Hay, H. R. Wickes, Wolf Plg. Co.; Geo. Rodgers, M. Snively, Frederick Webster, E. M. Tate, Moritz Wolf, Thomas W. Bryan, W. J. Elkin, R. J. Hannan, J. W. Scott, F. M. Eiber, A. H. McMinn, Geo. E. Dietrich and Thomas Priddy.

Pennsylvania State Convention.

THE Pittsburgh Master Plumbers' Association is on the job and is now making preparations for the Pennsylvania State Convention, and are out to make it the biggest and best convention that the State has ever held. The Pittsburgh slogan is, "Pittsburgh Promotes Progress," and the Pittsburgh Master Plumbers' Association is going to show that it is part of this "progress" scheme, and send out the advance notice that this convention will be a "hummer."

Good live committees are at work, and they have already selected the Fort Pitt Hotel, 10th St. and Penn Ave., for headquarters. This will also be the meeting place for the convention, and the banquet will be served in the beautiful English room.

Following are the names of the committees that have been appointed:

Hotel and Banquet Committee—W. H. Rowswell, chairman; E. M. Tate, S. S. White, John B. Paul, Geo. Rodgers and Jacob Soffel.

Finance Committee—M. Purtill, chairman; Harvey Lewis, Jr., H. M. Hay, M. S. Martin, A. McFadden, Geo. Rodgers, J. C. Leubin, W. N. Sauer, W. J. Elkin and T. F. Scanlon.

Entertainment Committee.—M. Snively, chairman; Robert Henderson, J. A. Weldom, T. R. Marshall, J. C. Godfrey, H. R. Wickes, John Provan, J. W. Scott, C. L. Ruffing and C. M. Swift.

Train Reception Committee.—Geo. B. Stewart, chairman; F. J. Scheib, J. D. Stanton, Andrew Frishkorn, Thomas Grace, J. L. Ewens, Peter Raehn, C. L. Bachman, Jr., J. F. Matter, A. J. Zillioux, J. A. Sweeney, F. J. Fleischel, H. T. McAdams, Bernard Wagler, H. T. Barr, H. H. Brown, Frank Holt, H. Harrison, H. A. Knauff, Earl S. Aurandt, Joseph M. Drum and Geo. M. Miller.

Hotel Reception Committee.—Claude E. List, chairman; F. J. Blakeley, Geo. F. Schade, Jr., Geo. Sheets, C. C. Deer, A. C. Good, C. M. Sahner, R. J. Hannan, J. B. Paul, J. K. McBride, A. Redenbaugh, W. E. Rowbottom, Frank McKnight, Frederick Webster, H. R. Bloedel, A. C. Boerner, D. G. Deeley, J. J. Kennedy, Ira A. Mann and W. T. McKissock.

Badge Committee.—W. J. Elkin, chairman; S. S. White and E. M. Tate.

The following officers were elected for the Pittsburgh Master Plumbers' Association to serve for the year 1913:

President, F. J. Hanley; first vice-president, J. D. Stanton; second vice-president, J. F. Matter; secretary and treasurer, E. M. Tate; sergeant-at-arms, C. E. List; ex-officio, W. H. Rowswell; members-at-large, A. Redenbaugh, H. R. Wickes and M. S. Martin.

The new president also announced the following committees to serve during the year:

Investigating Committee.—F. J. Hanley, chairman; J. D. Stanton, J. F. Matter, E. M. Tate, C. E. List, W. H. Rowswell, A. Redenbaugh, H. R. Wickes and M. S. Martin.

Auditing Committee.—Geo. B. Stewart, chairman; P. J. Montague and H. M. Hay.

Entertainment Committee.—Robert Henderson, chairman; T. F. Scanlon, F. J. Scheib, Joseph M. Drum and Geo. F. Schade, Jr.

Banquet of the Pittsburgh Association.

THE association will hold its second annual banquet at the Fort Pitt Hotel on Monday evening, Feb. 17. The following committee has been appointed to take charge:

Banquet and Hotel Committee.—W. H. Rowswell, chairman; E. M. Tate, S. S. White, J. B. Paul, Geo. Rodgers and Jacob Soffel.

By a unanimous vote it was decided to have the ladies present at this banquet, and as it is the first time that the Pittsburgh association has ever had the ladies at an affair of this kind, we have no doubt it will add tone to the banquet, and that the male members will enjoy themselves much more than they did when they so selfishly kept all these good things to themselves.

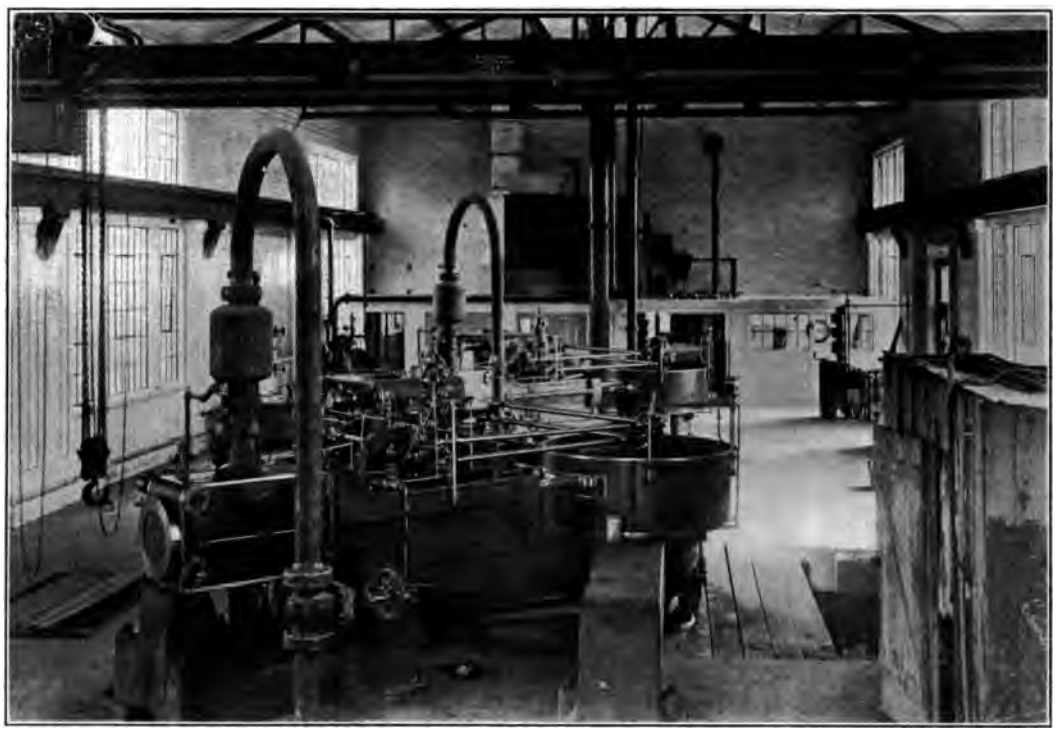
The last banquet, which was held at the Hotel Henry, was such a delightful affair that a great many of the members agreed that they would not be present at another banquet unless they could bring their wives or sweethearts to share in the pleasure.

New Sewage Pumping Station in Detroit.

Pumping the Storm Water and Domestic Sewage from an Area of 3,500 Acres of Residential Property Into the Detroit River.

STARTING the pumps at the new Fairview sewage pumping station at Detroit, Mich., says the *Engineering Record,* in October placed in service equipment comprising one motor-driven centrifugal pump of 30 sectional feet capacity and two steam-engine-driven centrifugal units of 100 sectional feet capacity, each designed to raise domestic sewage and storm water 30 feet from the 9-feet three-ring brick sewer in Parkview Ave. draining 3,500 acres of high-class residence property along Jefferson Ave. having a frontage of five miles on the Detroit River and Lake St. Clair. A large portion of this area is marsh land and lies slightly below the normal river level. It has been farmed for many years, being protected by private dykes. Originally the water was pumped out by windmills and later by steam pumps. The entire area is rapidly being subdivided and built up. One of the former pumping stations was on Connors Creek near Jefferson Ave., and discharged above the waterworks pumping station opposite the intake, although 3,000 feet from it. The new sewer cares for the drainage of this creek, and the ultimate extension to Fisher Road, in the village of Grosse Pointe, will include Fox Creek. On account of its location on the river front at the foot of Parkview Ave., in a future residence district, special attention was paid to make the station harmonize architecturally with its surroundings.

The pumping station is located on city property 38 feet east of Parkview Ave. and 234 feet back from the harbor line. To reach it the sewer makes a reverse bend starting at Edgemere Boulevard and terminating in a screen chamber located east of the building. The chamber is in line with a water gallery or suction well between the basement of the engine room and the substructure east wall. From the well the sewage passes through the pumps, out the west wall into cast-iron pipes which rise to discharge into the brick outlets 64 feet beyond the river end of the station. All engines are on the ground floor above the substructure and are direct-connected by vertical shafts to the pumps, which are half way imbedded in concrete to save further excavation and ensure a firm foundation.



INTERIOR OF THE NEW PUMPING STATION AT DETROIT.

WATER GALLERY.

The water gallery is 130 feet long, 9 feet wide, and sewage may rise in it sufficiently to utilize the capacity of the entire length of the sewer as a storage or equalizing reservoir. Hydraulically operated Coffin sluice gates, one 36 inches and two 54 inches, control the flow to the pumps. There is a relief valve on the closing side of the cylinder to prevent jamming the gates.

Ventilation of the well and the sewer is provided for by a 24-inch line of sewer pipe to the stack. For the whole basement a 36-inch American Blower Co. exhaust fan delivers into a galvanized-iron conduit carried to the lantern at the top of the building.

BASEMENT.

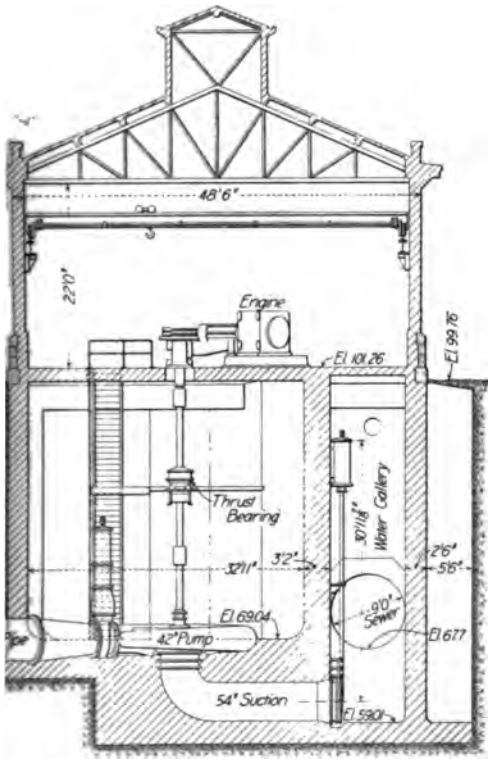
Walls and basement of the building rest on a blue-clay foundation which the engineers found to settle about ½ inch in a very short time under the 2-ton loads imposed. The walls were heavily reinforced and the whole structure went together. No further settlement has been noted, but as a precaution a bench mark for setting an equipment was established on an iron pin in the concrete. Concrete was made of one part Universal Portland cement to 4½ parts of river gravel mixed quite wet. The vertical reinforced concrete substructure walls vary in thickness from 37 inches on the north and south ends to 27 inches on the west side and 30 inches on the east side. The foundation slab extends beyond the walls 2 feet, except on the west side, where it projects 5½ feet to care for the stresses due to the weight of water in the water gallery, which is buttressed on the outside of the walls forming it.

MACHINERY.

Both large pumps are driven by angle cross-compound vertical-shaft condensing engines having rated capacities of 542 horsepower. They were built by the Wisconsin Engine Co. They rest on foundations carried to the basement floor. A bronze and cast-iron thrust bearing, carry-

ing the weight of the shaft, transmits the total vertical load to the foundation pedestals through built-up structural steel trusses. The bearings run in oil under atmospheric pressure. The cooling water is discharged through an open pipe so the engineer can gauge the flow by eye and test the temperature. Speed of the engines is regulated by a device made by the Speed Changing Pulley Co., of Indianapolis.

For the ordinary dry weather flow the small 24-inch pump, direct-connected by a lignumvitae thrust bearing to the Westinghouse synchronous 150-horsepower motor is used. Electricty is furnished by the Public Lighting Commission. For some time the sewer can be used as a reservoir, permitting the motor to be put out of service during the period of peak loads. Electricity is received at 6,600 volts and transformed to 550 volts for the pump motor and to 110 volts for lighting and other small motors.



CROSS-SECTION OF STATION.

Two 300-horsepower Stirling water-tube boilers, equipped with Detroit stokers, furnish steam at 140 pounds pressure per square inch. The boiler settings are finished in white enameled brick. A coal storage of 200 tons capacity is provided in front of the boilers by the erection of an 8-inch reinforced-concrete wall lined with brick. This wall is 12 feet high and is tied to the outer wall by a 4-inch concrete floor through which 5x5-foot hatches are left for the dumping of coal from a bucket holding ¼ ton, operated by an electric hoist. The latter is suspended from an 8-inch I-beam secured in turn to the roof trusses. The I-beam track extends out the south end of the building, where the coal is now delivered by team. Eventually the dock at the harbor line will be developed and coal received from boats.

There is no basement under the boiler room, but the structure rests on piles driven approximately on 2-foot centers. A 120-foot brick chimney, 5½ feet in internal diameter, rests on a concrete pedestal supported by 35-foot piles driven into the clay.

DETROIT PUMPING STATION AND SCREEN CHAMBER.

The bricks and trim harmonize with those used in the building itself.

The superstructure is of the classic style of architecture. It has a steel frame with buff Roman brick walls trimmed with terra cotta above the gray sandstone base courses. The steel roof supports reinforced-concrete slabs, over which are laid red tile. Inside, the walls are of gray facebrick above the wainscot of white glazed terra cotta. The floor is paved with large red tile. With the steel doors and Fenestra steel sash, there is very little wood in the station.

SCREEN CHAMBER.

In the screen chamber, which has an inside radius of 9 feet, except at the ends of the screens, where the 2½-foot concrete walls are flattened, shortening the width to 15 feet, there are two sets of two screens each, one set 3 feet ahead of the other. At the walls the guides are Z-bars built in, while the central guide is made up of two channels back to back supported on top by struts extended to the walls. Each screen is 7½ feet wide and 10 feet high. The 2x2-inch bars are spaced on 2-inch centers. A pan on the screen is provided at the bottom to prevent the screenings from falling into the sewer as the screen is raised for cleaning. The latter operation is effected by a hand winch driving an endless chain to a sprocket on a shaft at the ceiling of the screen house. Over the shaft at another point a heavy chain passes from each screen to a cast-iron counterbalance.

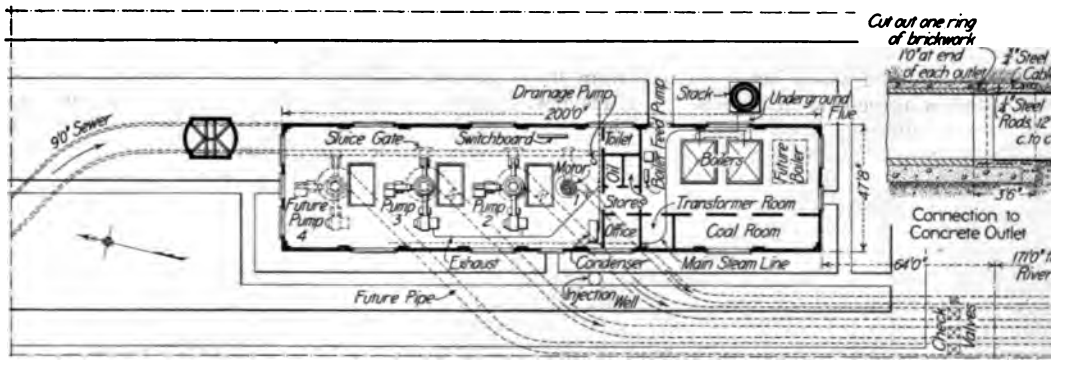
OUTLET.

Each pump in the station is connected to a separate outlet conduit, thus flattening out the discharge works and spreading out the foundation, which consists of five rows of piles driven 8 feet on centers. Capping the piles longitudinally are 12x12-inch sills over which is placed a 6x6-inch tongued and grooved floor. On top of 4-inch of concrete the brick sewers were laid and then concrete filled around the sections with a 1-inch reinforcing bar every 12 inches carried over the top, where the thickness is 10 inches.

SEWER.

At the pumping station the sewer has a 9-foot three-ring brick section estimated to carry 400 section feet expected from the run-off of a 2-inch rainfall. The total capacity of the present pump installation is 230 section feet, but room has been provided for an additional unit. The sewer is two miles long. For 4,446 feet at the lower end the grade is 0.07 per cent., while the remainder is 0.10 per cent. It is built on the north edge of the low ground at such an elevation as will permit all drainage from the river front to be diverted to it. It follows Jefferson avenue to a point 1,000 feet below the water works pumping station and 2,000 feet below the intake tunnel.

Construction of the section near the station, 1,700 feet long, was built in tunnel for 1,000 feet. It was then necessary on account



PLAN OF SEWAGE PUMPING STATION IN DETROIT.

of sand and water to open up the work and 22-foot steel sheet piling was used for 700 feet. The sheeting was braced with two rows of 12x12-inch wales and cross-pieces about 10 feet apart. This section was 30 feet deep and ran through a marsh. To add to the difficulties adjoining it and 25 feet above was another outlet sewer of four barrels, 4 feet 8 inches in diameter, built on a pile foundation. The work was carried on in sections about 60 feet long. Most of the excavation was removed by a clam-shell bucket, but the final trimming to the neat lines was done with clay knives. The cost of the sewer was $298,000, of the buildings $144,000, of the site for the station $20,000, and of the machinery $118,000.

W. F. Day and A. L. Sears, assistant engineers, were in charge of the sewer work, most of which was in tunnel. The design and specifications were prepared in the city engineer's office. Messrs. Smith, Hinchman and Grylls were the architects for the pumping station and consulting engineers on the design and installation of the machinery. Mr. Neal Fenkell, as their representative, acted as resident engineer. The Hunkin-Conkey Construction Co., of Cleveland, was the contractor for the building and the Camden Iron Works was the general contractor for the machinery. R. H. McCormick is city engineer.

Securing Co-operation of the Middleman.

Problems Encountered by the Manufacturer in the Distribution of Products Through the Dealer—Suggestions on Methods of Advertising.

By H. F. GORDON,
Advertising manager of Wheeling Corrugating Co., Wheeling, W. Va.
Paper read at meeting of Wheeling Advertisers' Club.

THE subject assigned is very broad, approaching in scope more nearly the general term "selling" than is at first realized, because of the fact that so large a percentage of manufacturing establishments follow the "dealer" method of selling that but very few prominent "factory-to-consumer" concerns are in operation. The great range of the subject forces us to deal with and speak in generalities rather than details. Under the circumstances, that condition is unfortunate, as each of the many branches into which this one question is divisible would furnish the whole evening's program if handled fully.

MANUFACTURER, MIDDLEMAN AND CONSUMER CLASSIFIED.

The middlemen are understood to be commission merchants, jobbers, wholesalers, retailers, retail mail order houses, agents, or whoever or whatever comes for a profit, as a medium of handling "goods, wares or merchandise" between the producer and the user.

The manufacturer is the basis of the entire story, because he is the producer; or, in other words, the one who so changes for a profit the form or finish of certain elementary products coming to his hand as to make them of greater usefulness or value to the non-producer for his use in supporting himself or in adding to his comfort, happiness and general welfare.

The consumer is usually the private individual using the manufacturer's products, and as he pays all bills—the cost of production plus the profits of the manufacturer and of any or all middlemen, plus the transportation charges along the route—he is the party to whom all profit takers must eventually cater.

INTERESTING THE MIDDLEMAN.

Interesting the middleman may be brought about by means of salesmen, who tell the story verbally and probably show samples to each prospective customer. The results of this method are limited to the physical ability of the individual salesman and to the number of men doing such work. The aggregate number of possible calls in a year's time is comparatively small. A few manufacturers still hold to this plan which, without question, is the least complex of all schemes and gives a distinct personal touch to every transaction.

It is generally concluded, however, that this simple plan has not produced the entire results desired by modern ambition unless the factory is of limited capacity and the owners do not care to enlarge its output or to invest more capital. With such selling plan the manufacturer places his faith in the dealers, believing that they will sell his goods and order more as a matter of course. Only the middlemen hear this manufacturer's arguments of superiority or other advantage unless the dealers should happen to repeat same "second hand" to consumer customers.

BECOMING AN ADVERTISER.

An ambitious manufacturer sees an opportunity for greater returns on his investment, if by any means he can turn out *and sell* more goods. He may follow the method of the manufacturer employing salesmen and add to it some plan by which favorable attention of the public may be drawn toward his particular line. In so drawing, or attempting to draw, such favorable attention he becomes an "advertiser."

WHY MANUFACTURERS ADVERTISE.

Becoming an "advertiser" means an indefinite something to the public, to some trade journals, to some miscellaneous publications, and even to some agencies; but to the manufacturer it means the expenditure of brains, time, money and physical effort. For what purpose? That greater profits may result from full operation of the factory; that the percentage of fixed expenses and executive and management costs may be lowered in comparison with the output; that the demand for the products may be continuous, keeping the production up to its highest point all the time; that the reputation of the product and of the producer may be as a veritable guaranty; and that by such production and efficiency prices may be so adjusted as to show reasonable profit on the investment (not capitalization), and to command the market on the price basis alone, if it should become necessary to do so. All this expenditure must show "reasonable returns," which are naturally the total outlay plus a satisfactory profit.

The middleman's interest is most quickly aroused by the "price-delivery quality" argument rather than by the "quality-delivery price" line. The consumer is usually interested in quality, because he has found that the best he can afford is the most economical. Happy is the manufacturer who can appeal to the consumer on quality and economy and at the same time to the dealer on price and delivery.

But forget the ideal and assume that we are dealing with an abstract article that we want the consumer to try out and then continue to use, and which article we expect to furnish to the consumer via the "dealer line" route only. Remember now that we will not sell to the consumer because of the antagonism of the dealers who are sure to express unfavorable sentiments that are at the present time, and under present conditions, very much to the manufacturer's disadvantage, if once incurred. Be that as it may, the attempt to attract favorable attention to the product could be termed an advertising campaign in whatever form it may be worked out. It might be verbal only, it might be printed only, it might be commissions paid or it might be a combination of two or more methods.

CREATING RESPECT FOR ADVERTISING.

The ordinary understanding of an advertising campaign from the viewpoint of the public is the idea that the product in question is being "printed about" for a price in certain publications and that catalogues and circulars are flooded upon those who inquire for information. The old idea that everything that is advertised is a fake is rapidly passing away; but the idea that only products of real merit can now be successfully advertised has not yet secured the proper hold upon the public mind.

GETTING CO-OPERATION OF THE DEALER.

Given the article, the market and the man; how shall we make them produce for all concerned the desired satisfaction and profit? The market in the case at hand is the middleman, but as he depends upon the consumer the ideal plan would be to tell the consumer all about the product and tell him to buy from his local middleman. This "telling" may be done by magazine and newspaper advertising, by letters written and circulars distributed, by signs and posters and by use of novelties or premiums. The dealer, on his side, may assist, but it is not likely that he will use much of his time in what he considers labor for the manufacturer, but counter signs, window displays, suggested plans for window trims, suggested special sectional or department arrangements, advertising in local mediums over the dealer's name, advertising folders

for mail and hand distribution, novelties, etc., may be furnished for his use and for the purpose of securing and holding his good will.

Manufacturers want the good will and co-operation of the dealers. No one can secure such an asset without cost. In most cases the cost is very heavy, but it is usually worth the expenditure, if for nothing else than the future. The factory must produce for the future as well as to-day.

The dealer is benefited by such catalogues and printed matter as explain clearly and fully everything he has occasion to know, convenient order forms, inquiry forms and return envelopes. A catalogue should be the "unabridged dictionary" of a concern's products, meaning that all necessary information relative to an article listed is to be found right there and not on a lot of miscellaneous loose folders or letters. A catalogue that does not give full information is soon discarded for one that does, and some other "fellow's" name is likely to be on the one adopted unless advance care is taken to prevent. The catalogues should be of convenient size for use and storage, subject, of course, to special size for special subjects requiring large illustrations. It should be well printed and properly indexed for eye-ease and quick handling. Catalogue interest usually means product interest. A sense of guilt when a good catalogue goes in the waste basket sometimes produces a favorable memory impression.

HOW TO TREAT THE DEALER.

Treat the dealer as a partner rather than a "bait": let him feel that every transaction is for his benefit to as great an extent as it is for the manufacturer. It is not necessary to leave the impression that the sale carries no profit because the dealer either knows betters or thinks the salesman a "dub" and the manufacturer a fool for accepting the business.

Co-operation of the dealer is best secured by giving him what he wants when he wants it and at a price that is reasonable to both parties; by showing interest in his business to the extent at least of advising him of items that come to the manufacturer's attention, especially if there is an opportunity for a sale to be made; and we will mention one other phase of interest—that of "team work" vs. "individual averages" in the manufacturer's plant and offices. Each and every department should work hand in hand with all other departments, every action, sales letter, credit inquiry, collection effort, invoice, statement or argument should conform to a general pre-arranged system of action known as the "policy of the company"; as above stated, everything that leaves the plant or office is an advertisement, good or bad. A bad "policy" will kill the sale of good goods.

Passing the question in a general manner, it might be well to state that every letter, invoice, bill, statement—in fact, every piece of mail of whatever sort and from whatever department it may come—is an advertisement; so is every employe, and even the location and appearance of the office and factory and the approaches to same. No bargain is a good one that does not leave satisfaction on the side of all concerned. And Ruskin wrote: "A composition for cheapness and not for excellence of workmanship is the most frequent and certain cause of the rapid decay and entire destruction of arts and manufacture."

Optimism should be the creed of every sincere ad man, so I will close with Riley:

"Whatever the weather may be, says he,
Whatever the weather may be,
'Tis the song ye sing and the smile ye wear
That's makin' the sun shine everywhere."

Plumbers' License Set in Denver Plumbing Ordinance.

AN ordinance to license all plumbers in the city and compel them to pay a yearly fee of $10 has been drawn by Plumbing Inspector John Schuster and was submitted Jan. 11 at a meeting of the aldermen by Alderman Ford.

The object of the ordinance, Schuster says, is to make the department self-supporting and make it possible to more strictly regulate plumbing work. The expenses of the plumbing department, salaries and all, amount to about $600 a month. Plumbing permits bring in about $450 monthly. There are 212 plumbing firms in Denver, and these would add $2,100 to the revenues of the department.

"Our old plumbing ordinance is entirely out of date," declared Schuster. "Under its provisions we did not know whether we had a right to pass some of the most modern equipments. The new law will cover every phase of the business and it will be impossible for improper work to be done.

"A further advantage to the department lies in the fact that the plumbers will have to pay a $100 bond, and if their work does not come up to requirements they will either have to change the work or forfeit the bond."

Wm. F. Black, the leading plumber of Enid, Okla., is using the highest class bath tubs, lavatories and all kinds of plumbing supplies. He claims his plumbing will pass inspection and last a lifetime.

For Quality—Superior Workmanship
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The most complete shop in New York City devoted to plumber's brass goods, from foundry to finishing.

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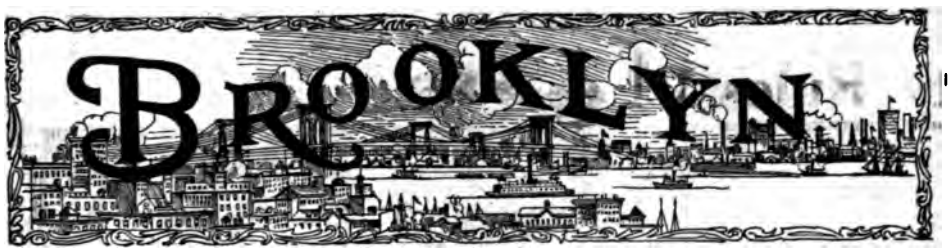

AMONG the busy Brooklyn plumbers may be mentioned John Buck, of 127 Grand St. Mr. Buck has recently opened at the above address, and is desirous of obtaining catalogs from the various supply houses and manufacturers in plumbing supplies, and range dealers.

Plumber Captures Youth in His Shop.

GLANCING into his plumbing shop at 305 Wythe Ave., Williamsburg, on Jan. 13, while on his way home, Peter Victor saw a youth in the rear of the shop packing up lead. He entered the place quietly and seized the youth before he could escape.

The young man put up a hard fight, and nearly succeeded in getting away. Victor's cries for help were heard by Policeman Denkert, of the Bedford Ave. Station, who hurried to Victor's assistance.

Between them they subdued the intruder and took him to the station. There he said he was John Browsky, 16 years old, of 284 Commercial St.

Commissioner O'Keeffe Outlines Plans for Greater New York Bridges.

IN an interesting and instructive address on the "City Beautiful" at the Holy Name Society of the Holy Family Church, 13th St. near Fourth Ave., Sunday evening, Jan. 12, Bridge Commissioner Arthur J. O'Keeffe gave outlines of the proposed approaches to the Brooklyn, Manhattan, Williamsburg and Queensboro bridges. Of the proposed approach to the Brooklyn Bridge in Brooklyn, Mr. O'Keefe said that this development would remove all buildings between Fulton St. and Washington St. from Sands St. to the Borough Hall. That the present barn-like terminal at the entrance of the bridge would be removed and with it the train platform extending back to Tillary St., with its web and tangle of railroad tracks.

Mr. O'Keeffe said that the elevated structure on Fulton St. would be removed from Boreum Pl. to York St., and that the elevated structure on Adams St. would be replaced and that street widened to take care of a five-track elevated system instead of the present two tracks. This, he said, would make express service possible by third-tracking the elevated systems which now feed into Adams St. He said that under present conditions express service is prohibited, as all trains are bottled up and unnecessarily delayed.

When this approach is laid out, the speaker declared, Borough Hall would be improved in attractiveness, and realty values on the new square and civic center thus created would rise greatly in value. The important feature of this proposed new approach would be the creation of a splendidly adapted site for the new court house. This new building would find ample space on that part of the approach which is generally located around Tillary St., and such a use of part of the proposed bridge approach property would save enough money to almost pay for its cost. The commissioner illustrated his talk with lantern slides of the four bridges crossing the East River. There were also slides of recent charts containing traffic information.

A picture was thrown upon the screen showing how the proposed Brooklyn Plaza of the Manhattan Bridge will be beautified and made attractive by architectural and parking treatment. This plan, said the commissioner, is the result of long study by the Department of Bridges for the development of this approach, both as to transportation facilities and with the object of making the approach an attractive local feature to Brooklyn.

Referring to the Brooklyn Plaza of the Williamsburg Bridge, Mr. O'Keeffe illustrated a plan which, if carried out, will change the barren waste of cobblestones and trolley tracks now occupying that plaza into a park and a convenient trolley station. Proposed treatment of the Manhattan and Queens approaches for the Queensboro Bridge were also shown.

Of the Manhattan Plaza of the Manhattan Bridge, Mr. O'Keeffe said: "The plan for the Manhattan Plaza of the Manhattan Bridge is probably the most artistic treatment of a bridge entrance that has yet been attempted on this continent. When the plazas or entrances to the larger bridges are constructed it will mark a new era in esthetic treatment of the entrance to bridges. In Europe this feature has been given a great deal of attention, but up to the present time, with but few exceptions, has been neglected in this country. It will have the elliptical effect of the colonnade at St. Peter's, Rome; the archway is somewhat similar to the arch in Paris at Port St. Denis, and the treatment of the arch suggests the Arc de Triomphe. The sidewalks will be laid out with warm-colored mosaics, and the crossings lined off with similar stones, which will add much to the appearance of the plaza. The arch and colonnade treatment was chosen, as this bridge is the gateway to Brooklyn, and with the continuation down Flatbush Ave. extension forms a main highway of travel from Manhattan to the ocean."

With a force in the Bridge Department of 1,236 employes, 45 bridges over navigable waters are under the jurisdiction of the Commissioner of Bridges, said Mr. O'Keeffe. Of the seven largest bridges in the world, New York City has four. There are no suspension bridges outside of New York City comparing favorably in length with either the Williamsburg, the Brooklyn or the Manhattan bridges, and only one cantilever bridge, the Firth of Forth, of Scotland, having a longer span than the spans of the Queensboro Bridge.

Preceding the Bridge Commissioner's address there was a musical entertainment given by members of the Holy Name Society, under the direction of John J. Lynch, chairman. Those participating in the entertainment were Edward S. Kelly, Harry O'Brady, Florence Ravener, Dorothy Wood, William Carleton and little Marie Hazrick.

An amusing incident occurred during the evening in which the Bridge Commissioner starred in a singing role. Little Marie Hazrick had been singing "Be My Little Baby Bumble Bee" just before Mr. O'Keeffe took the floor, and when the speaker arose he said that all the singing reminded him of the time when he participated in just such entertainments. He said he felt less like talking about bridges than he did like singing—and here he broke out in a resonant baritone, "Be My Little Baby Bumble Bee," to the intense delight of that crowded house, and the people applauded again and again and insisted upon him singing for them. This, however, he declined to do.

Burglars Had Nice Manners.

GEORGE S. JAMES, a prominent master plumber, of Fulton St., Brooklyn, N. Y., who has a country home on the Ox Ridge road at Darien, Conn., opposite that of Robert Hunter, the Socialist orator, received word on Saturday, Jan. 18, from his caretaker that his house had been entered by burglars and ransacked from cellar to attic.

Mr. James went up to Darien the next morning to see just how much the intruders had damaged his villa, and expected to find things all in confusion and some valuables missing. To his surprise and pleasure he found that the burglars had done very little damage, and had taken absolutely nothing.

They had even been careful to not mar furniture or carpets, and but for the fact that they left unclosed the window which they had jimmied open, it would have been difficult to discover that there had been any intruders.

George is seriously thinking of leaving a box of perfectos and a few cold bottles on the sideboard after this, so that the "nice-mannered" burglars may refresh themselves after the severe struggle with their conscience, which must leave them in an exhausted condition when they realize their mistake in entering a plumber's mansion.

Knights of Galena.

THE Knights of Galena will hold their eighth annual entertainment and ball at the Labor Lyceum, Willoughby and Myrtle Aves., Brooklyn, Monday evening, Feb. 3. A good time is awaiting you.

Where Quality Rules

German Silver and Copper

Oval
Square and
Recess

Pantry Sinks
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The *Jobbers* of Plumbing Goods of the United States desired a *Standard* of Weights and Capacities of "Galvanized Range Boilers." The National Committee of the Confederated Supply Association thereupon appointed a committee on Standards. This committee compiled a standard for Range Boilers. The Standard stipulates that all Galvanized Range Boilers must be stamped with their actual capacity, and the materials used in the boilers must be of a specified thickness. On all such boilers the "Naco" label may be used.

We Manufacture
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L. O. KOVEN & BRO.

50 Cliff Street, New York

New England News.

AT a meeting of the Massachusetts Chapter of the American Society of Heating and Ventilating Engineers at the City Club January 14, John J. Martin, the president, predicted that the recent harbor appropriation and the building of the new dry dock here will bring about an unprecedented boom in South Boston, which will rebuild that section of the city.

M. E. Deal has opened an up-to-date plumbing establishment in the store formerly occupied by the Two-in-One Shoe Store at Amesbury, Mass.

W. T. Corcoran is installing the plumbing in the building being remodeled on S. Elm St. for the Italian Congregational Church at Waterbury, Conn.

F. W. Engert & Son, of Waterbury, Conn., have been awarded the contract for the plumbing and heating for the three family house to be erected on Cooke St. for Timothy J. Brennan.

Contracts for the heating of floor No. 2 and the annex and floor No. 3 of the Waltham Building Association Building at Waltham, Mass., have been awarded by the board of directors. The contract for the heating of floor No. 2 and the annex has been let to Taylor & Percival and floor No. 3 to Frank D. Wellcome. Fred H. Kirwin has been given the contracts for both floors.

John Newman, of S. Norwalk, Conn., who bought the plumbing business of Rudolph Lohr, who was drowned last Summer in the river near his shop, has had a telephone installed in his place of business.

Architect Jos. A. Jackman, 1123 Broadway, New York, has completed the plans and specifications for the steam heating, plumbing and electric wiring in the new church at Bridgeport, Conn., which the Granite Construction Co. is building in the East End for the St. Cyril and Methodius R. C. Society.

Edward Riley is having an up-to-date and modern convenience put in his business block, the Riley block, in McKinley Square, at N. Adams, Mass. It is a steam heating plant and the work is being done by J. J. Carney.

The jury that was impanelled in the case of Edward E. Stetson, a master plumber of Somerset, Mass., against Dr. Charles S. Gleason, executor, of Wareham, which went out Jan. 13, brought in a verdict, which was announced on Jan. 14, of $111 for the plaintiff. The bill for installing a heating plant with interest, making a total of about $237, claiming it the balance due on a bill for installing a heating plant in Dr. Gleason's home at Wareham.

A petition was received from the Plumbers' Association by the council of Bridgeport, Conn., asking that a plumbing inspector be appointed to inspect all the plumbing going into new buildings, he to be under the directions of the board of health and to receive a salary of $1,200 a year. The matter was referred to the ordinance committee.

Ralph W. E. Milliken, of Wallace St., Somerville, Mass., has resumed charge of the plumbing shop at 261 Elm St., formerly conducted by Milliken & Clement and more recently by H. B. Clement, and will run it with the plumbing shop at 1137 Broadway as Milliken & Co. Mr. Clement is now associated with Sleeper & Littlefield, dealers in autos and supplies at 16 College Ave., and has installed a plumbing department there.

Big Bathtub at New Haven.

AS the state suite at the Taft Hotel, which President Taft has occupied frequently, is not large enough to provide for his family, the hotel management is preparing a special suite of 10 rooms on the sixth floor, which will be their home when Mr. Taft goes there to begin his work in connection with the Kent professorship of constitutional law in the Yale Law School.

Work of building an immense bathtub for Mr. Taft was begun Jan. 13. The tub will be 6 feet 6 inches long and 4 feet 6 inches wide and deep enough to allow an ordinary sized man to float when it is filled.

The Ohio State Convention of Master Plumbers.

THE following communication has been sent to the Ohio master plumbers by State Secretary Eb Ellen of Cleveland:

To the Master Plumbers of the State of Ohio:

GREETING.

The 22d annual convention of Ohio State Association of Master Plumbers will meet at Toledo, O., Tuesday, Wednesday and Thursday, Feb. 18, 19 and 20, 1913. The attending delegates will convene Tuesday, Feb. 18, at 10 A. M.

REPRESENTATIONS.

Associations having a membership of 75 to 100 shall be entitled to one representative for every 10 or fraction thereof.

Associations having a membership of 50 to 75 shall be entitled to one representative for every nine or fraction thereof.

Associations having a membership of 25 to 50 shall be entitled to one representative for every eight or fraction thereof.

Associations having a membership of 15 to 25 shall be entitled to one representative for every seven or fraction thereof.

Associations having a membership of five to 15 shall be entitled to one representative for every five or fraction thereof.

Associations of less than five, or towns where no association exists, shall be entitled to one representative.

Headquarters at the Boody House, Toledo, O.

Appoint your delegates promptly, sending to the secretary-treasurer, Eb Ellen, 2057 E. 93d St., Cleveland, O., enclosed credential blank, properly filled out, so that delegates may be known when credentials are presented to the credential committee. Any member of the State Association in good standing will be admitted to the hall, but delegates only will be allowed to vote. It is essential that every local in the State be represented by the best of its membership. Individual members in towns where there are no other members are entitled to be delegates to this convention. Essays should be forwarded to chairman of essay committee, as designated on heading.

HOTEL RATES.

Boody House—$1.50 and up, European plan; $2 and up with bath. $3 and up, American plan; $3.50 and up with bath.

Hotel Secor—$1.50 and up, European plan; $2 and up with bath.

Hotel St. Clair—75 cents to $1.50, European plan with bath; $2 to $3, American plan with bath.

Hotel Jefferson—$2, $2.50 and $3, American plan.

Hotel Toledo—$1 and $1.50 with bath, European plan.

All those who expect to attend are advised to reserve hotel accommodations in advance.

Further information as to hotels will be furnished upon application.

Amendments to the constitution and by-laws must be proposed in writing and forwarded to the secretary 30 days previous to this meeting.

JOHN F. DREES, President.
EB ELLEN, Secretary-Treasurer.

Ohio Locals Elect Officers

AT the last meeting of Zanesville, O., Local the following officers were elected for the coming year: President, W. E. Bower; vice-president, H. Bonn; secretary-treasurer, A. J. Miller; delegates to the State convention, W. E. Bower and J. U. Clark; alternates, W. G. Feichter and F. A. Bohn.

Officers elected and installed for the year 1913 at Dayton, O.: President, Ellsworth Halterman; vice-president, Charles E. Wilson; secretary, J. L. Riley; treasurer, C. F. Clemens; sergeant-at-arms, John Schneider; delegates to the Toledo convention, William Haas, Harry Danner and John Schneider. They are all active scouts, willing and ever ready to do those things that lay near at hand.

The new officers of the Canton, O., Master Plumbers' Association are: President, Leo Schumacher; vice-president, D J. Ahearn; secretary, Frank Westrich. C. Carpenter was elected as treasurer for another year.

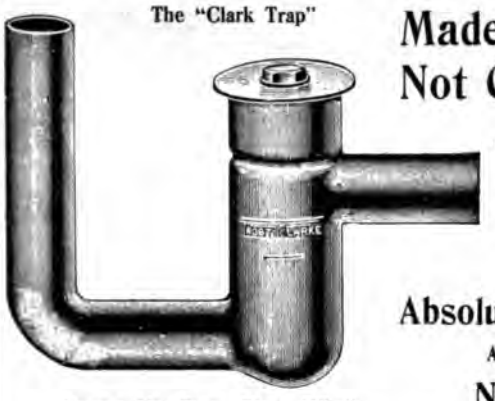
The Toledo, O., master plumbers held an enthusiastic meeting on Dec. 18. The election of officers resulted as follows: President, John A. Brooks; vice-president, John J. Schelling; secretary-treasurer, Wm. G. Wacker; board of directors, Wm. Sanzenbacher, A. G. Moore. Ex-President J. A. Wood was endorsed for State vice-president.

Stradling Plumbing & Heating Co. Elect Officers.

THE annual meeting of the Stradling Plumbing & Heating Co., of Utica, N. Y., was held Jan. 15 in the offices of the company, 50 Genesee St. The officers chosen were: President, E. W. Stradling; vice-president, E. H. Bill; secretary, C. E. Stradling; treasurer, W. C. Ballda. The directors chosen were: E. W. Stradling, E. H. Bill, W. C. Ballda, W. L. Putnam and C. E. Stradling. M. A. Anesty and W. L. Putnam served as inspectors of election.

SAND HOLES? NEVER!!

The "Clark Trap"



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New York City

New York State Notes.

THE Plumbing Board of Lockport, N. Y., met at City Hall, Jan. 11 and organized for 1913. Inspector of Plumbing B. N. Smith was elected president without opposition. He is one of Lockport's most faithful servants, having served as plumbing inspector since March, 1893.

Theodore Holm has opened a plumbing and locksmith store in the Graham-Wilson building, Purchase St., Rye, N. Y.

Ayers Bros., who have opened a plumbing and tinsmith shop at Maybrook, N. Y., are doing good business.

The Waterman and Waterbury Co., of Buffalo, are installing their patent heating and ventilation apparatus in the Thompson and Gouldtown Schools at Russell, N. Y.

William H. Johnson has resigned his position in the plumbing department of Story & Strong, of Seneca Falls, N. Y., after having been with the firm for thirteen years.

Messrs. Davis & Dunlavey, of Orleans, N. Y., the plumbers, have taken over the New Central, Olean's second largest hotel, and will give up their plumbing shop.

At the monthly meeting of the Master Board of Plumbers of Rome, N. Y., Wednesday evening, John R. Harper was reelected chairman.

Mayor Corwin, of Newburgh, N. Y., named Charles F. Hoisted as a member of the board of plumbers and plumbing, to succeed James Driscoll.

At a meeting of the Rochester, N. Y., examining board of plumbers, Jan. 6, the following officers were elected for the year: President, George H. Hillyard; secretary, J. Alfred O'Kane.

Hermon Saxton was reappointed plumbing inspector and A. S. Gustin sanitary inspector for the coming year, at the regular meeting of the board of health, of Gloversville, N. Y., which was held Jan. 8, the salaries of these officials to be the same as last year.

The contract for installing the heating system in the Baptist Church at Wappinger Falls, N. Y., has been awarded to plumber Ernest Baxter of West Main street, who was the lowest bidder.

A certificate showing that the Climax Lock & Ventilator Co., of Buffalo, N. Y., has increased its capital stock from $150,000 to $250,000 has been filed with the county clerk.

Binghamton, N. Y., Notes.

R. J. MALANE, 88 State St., has his force of men engaged doing general plumbing and steam fitting overhauling for the D. L. & W. R. R. here and in the vicinity.

W. D. Cullagh, 140 State St., reports a prosperous year just past, and has in prospect several interesting contracts.

F. P. Kelly, 100 Washington St., has just completed necessary plumbing and heating in a number of cottages in Leicestershire.

V. W. Hadley, 175 Water St., has a number of general contracts on hand. His prospects for a busy Spring are mighty good.

O'Neill & Murphy, Binghamton, N. Y., have their men at work upon a pretentious building just erected. The contract, which calls for plumbing, heating and accessories, is a considerable one.

A. Auchinochie, 17 State St., has been busy for some time installing some high grade plumbing and steam heating apparatus in Union, one of the suburbs. Generally he has been busy all through the year, which has been one of his best since entering the plumbing field for some time since.

George Cropper & Son, 17 Main St., who devote their attention particularly to jobbing, have enjoyed some remunerative contracts lately, and everything with them points to a busy Spring in the overhauling line.

Warner Plumbing Co., 129 Oak St., have recently secured a couple of contracts for work "Over the River." This enterprising company has been generally busy during the past year.

John H. Stafford, 119 Court St., has just completed contract submitted to him by Messrs. Conrad & Tiffany, local architects of prominence. In addition his contract department is figuring on some extensive work in and about the city.

W. S. C. Smith, 44 Henry St., has made a specialty of beer pump work, and his many customers in this interesting branch of the business keep him and his force of men busy.

Prescott Plumbing & Heating Co., 207 Water St., for some considerable time have been active in the heating line. Several important contracts are now being finished by them. They have sufficient work ahead to keep them busy till late in the Spring.

Superintendent Stoppard, of the City Water Works, 100 Water St., is getting ready to lay four or five miles of water service pipe as soon as the weather permits.

Another High School Kick.

AT a meeting of the high school commission of Buffalo, on Jan. 10, in the mayor's office it was found that notice has been served on the city by the Master Plumbers' Association protesting against the city giving the plumbing contract for the Masten Park high school to George B. Long. It is claimed in the notice that he is not a master plumber but a general contractor. The contract is for about $40,000.

The commission referred the matter to the corporation counsel for an opinion.

Frank B. Wilson, of Watertown, N. Y., Celebrates Tenth Anniversary of His Joining Plumbing Board.

IN honor of his tenth year of service on the board of plumbers and also in honor of his 50th birthday, which occurred recently, Frank B. Wilson, president of the Watertown plumbing board, gave the members a banquet in the Woodruff House grill, Jan. 10, which was attended by Mayor Francis M. Hugo, Commissioners A. R. Benson, and Charles A. Campbell, Plumbing Inspector Charles R. Werner, Clerk Owen R. Owens, City Engineer E. W. Sayles and W. H. Littlefield.

Prior to the banquet, the annual meeting of the board was held and Mr. Wilson was re-elected president and Owen R. Owens was re-elected secretary, while Mr. Werner was continued as inspector.

The banquet was purely an informal affair and President Wilson occupied the place at the head of the table. Before the conclusion of the affair, Charles A. Campbell made remarks in appreciation of Mr. Wilson's service on the board and in behalf of the other members, presented him with a handsome Knights Templar charm.

Bronx Plumbers.

M. MICHELSOHN, formerly of 1575 Washington Ave., Bronx, has removed to 502 Wendover Ave. He is busy on a contract in a six-story house in St. Paul's Pl., and keeps six gangs busy on repairs and alterations.

Thomas M. Cantwell, of 1965 Webster Ave., Bronx, is a busy man these days. In addition to his numerous plumbing jobs he has a number of steam and hot-water contracts on hand.

Among the many busy plumbers in the Bronx Louis P. Bregman, of 4031 Third Ave., may be added to the list. Louis says that the new county will be a beehive for plumbing work in the Spring.

The Home Heating & Plumbing Co., of Monroe, La., is a hustling firm and are continually on the job. They base their claim for local patronage and back up their claim as follows: "All contracts that have been taken by us were guaranteed for a period of 12 months. Not a single one, up to this date, has had to pay a dollar for repairs, other than for their carelessness."

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MALLEABLE and CAST IRON FITTINGS
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White Bone China Bathroom Accessories.

WHITE has to-day become the accepted color for the bathroom. It is the symbol of cleanliness the world over, and in the matter of bathroom fixtures and trimmings it is the symbol of sanitation as well. Germs cannot live on white surfaces—they must have dark places

in which to breed—so that white as the symbol of cleanliness and sanitation has the logic behind it.

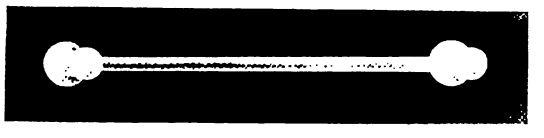
On this page we show some of the white bone china trimmings for bathrooms made by the Thos. Maddocks Sons Co., of Trenton, N. J. These bone china trimmings are

always the same. They require only wiping with a damp cloth in order to keep them as clean and new as the day they were made. They contain no cracks or crevices to catch dirt and harbor disease-breeding germs. Consequently they are the most sanitary fixtures obtainable.

Jobbers and plumbers are taking up this line very rapidly for the reason that they find it to be one which instantly appeals to everyone who has or is building a home. These fixtures may be said to add the final touch to the bathroom, which has grown in the last 20 years from an unsightly and unhealthful room into a place of positive delight and comfort to all.

This line of fixtures is made by Thomas Maddock's Sons Co., the oldest manufacturers of pottery in the United States, and is claimed by them to be unequaled in material, workmanship and beauty of design.

They will gladly send catalogues and detailed information upon request.



The Hart & Crouse Company.

THE Hart & Crouse Co. and the New York Radiator Co. are to consolidate into a single corporation to be known as Hart & Crouse Co. Both boards of directors met in Utica, N. Y., on Jan 17, every member of each board being present, and unanimously adopted the consolidation agreement.

The consolidated concern will be one of the largest and most prosperous in this section. The capital will be $1,000,000, of which $500,000 will be common stock and $500,000 preferred stock. The two concerns which will unite into one have been closely connected since the New York Radiator Co. was incorporated in 1902. The Hart & Crouse Co. was incorporated in 1896; previous to that H. Gilbert Hart and Clarence B. Crouse had engaged in a partnership under the name of "Hart & Crouse." The partnership, as well as the corporation which succeeded it, had its plant in the block bounded by Pine, Lafayette and Cornelia Sts., and the Erie Canal, and the concern grew to occupy the entire block. As much as 10 years ago the concern outgrew the limits of that block, and commenced to transfer its manufacturing to the plant of the New York Radiator Co., whose stockholders are largely the same as the stockholders of the Hart & Crouse Co., in East Utica.

As long ago as in 1907 or 1908, two-thirds of the manufacturing of the Hart & Crouse Co. was done at the East Utica plant; meanwhile its principal office was maintained at 78 Lafayette St. Finding it indispensable for the office and the plant to be together, the principal office was finally moved, about a year ago, to East Utica. The office was the last part of the business to leave the Lafayette St. plant. Last Spring a jobbing office was opened on the Lafayette St. site.

The present Hart & Crouse Co. maintains branch offices at New York City in the Flatiron building, and in Chicago, Ill., and in Columbus, O. The concern manufacturers hot water and steam boilers for heating, and hot-air furnaces, and does business in every State in the country, and ships its product to foreign countries. A conspicuous feature of its business the past two or three years has been its well known "smokeless boiler," which is a patented heater which has successfully demonstrated its ability to burn practically any kind of soft coal without emitting smoke from the chimney. The New York Radiator Co. manufacturers steam and hot water radiators of all sizes and varieties. The two concerns employ about 400 men.

The officers of the present Hart & Crouse Co. are: H. Gilbert Hart, president; H. G. Hart, Jr., vice-president and general manager; Joseph Rudd, vice-president; Merwin K. Hart, vice-president; Frederick J. Stroebel, secretary; Frederick T. Proctor, treasurer. The officers of the New York Radiator Co. are: Frederick T. Proctor, president; H. Gilbert Hart, vice-president; Harry G. Hart, Jr., secretary and treasurer.

The attorneys of the consolidation are Merwin K. Hart and Charles A. Miller.

The Dirigo Solderless Copper Float.

THE Dirigo solderless copper float has been designed to overcome the objections to copper floats made with soldered seams, or other foreign substances, such as rubber bands and steel plates, and is practically indestructible. Made from

pure copper, all joints and seams are of sufficient rigidity to prevent the ball from collapsing under any conditions that surround its use in closet tanks, and the manufacturers say that they will always replace any imperfect float that does, in spite of their caution, pass inspection.

They offer it to the trade at a reasonably low price, feeling sure that its merits will be appreciated.

The Dirigo is manufactured from heavy gauge copper and locked seamed. Not a particle of solder or other material used in its construction and is guaranteed absolutely water tight.

It is just the kind of a float you have been looking for. In many localities the water is of such a nature that solder or rubber will disintegrate when exposed to its action and the seams quickly come apart.

Modern Plumbing Illustrated

400 Large Quarto Pages. Fully Illustrated by Fifty-five full pages of detailed engravings, which have been made specially for this book.

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THE author of this book, Mr. R. M. Starbuck, is one of the leading authorities on plumbing in the United States. The book represents the highest standard of plumbing work. It has been adopted and used as a reference book by the United States Government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal Boards of Health of the United States and Canada.

It gives Connections, Sizes and Working Data for All Fixtures and Groups of Fixtures. It is helpful to the Master Plumber in Demonstrating to His Customers and in Figuring of Work. It gives the Mechanic and Student quick and easy Access to the Best Modern Plumbing Practice. Suggestions for Estimating Plumbing Construction are contained in its pages. This book represents, in a word, the latest and best up-to-date practice, and should be in the hands of every sanitary engineer and plumber who wishes to keep himself up to the minute on this important feature of construction.

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4 Water Closets—Venting of Water Closets
5 Low-Down Water Closets—Water Closets Operated by Flush Valves—Water Closet Range
6 Slop Sink—Urinals—The Bidet
7 Hotel or Restaurant Sink—Grease Trap
8 Refrigerators—Safe Wastes—Laundry Waste
9 Lines of Refrigerators, Bar Sinks—Soda Fountain Sinks
10 Horse Stall, Frost-Proof Water Closets
11 Connections for S Traps, Venting
12 Connections for Drum Traps
13 Soil Pipe Connections
14 Supporting of Soil Pipe
15 Main Trap and Fresh Air Inlet
16 Floor Drains and Cellar Drains—Subsoil Drainage
17 Water Closets and Floor Connections
18 Local Venting
19 Connections for Bath Rooms
20 Connections for Bath Rooms, Continued
21 Connections for Bath Rooms, Continued
22 Connections for Bath Rooms, Continued
23 Examples of Poor Practice
24 Roughing-Work Ready for Test
25 Testing of Plumbing System
26 Method of Continuous Venting
27 Continuous Venting for Two-Floor Work
28 Continuous Venting for Two Lines of Fixtures on Three or More Floors
29 Continuous Venting of Water Closets
30 Plumbing for Cottage House
31 Construction for Cellar Piping
32 Plumbing for Residence—Use of Special Fittings
33 Plumbing for Two-Flat House
34 Plumbing for Apartment Building
35 Plumbing for Double Apartment Building
36 Plumbing for Office Building
37 Plumbing for Public Toilet Rooms
38 Plumbing for Public Toilet Rooms, Continued
39 Plumbing for Bath Establishment
40 Plumbing for Engine House—Factory Plumbing
41 Automatic Flushing for Schools, Factories, etc.
42 Use of Flushing Valves
43 Urinals for Public Toilet Rooms
44 The Durham System—The Destruction of Pipes by Electrolysis
45 Construction of Work Without Use of Lead
46 Automatic Sewage Lift—Automatic Sump Tank
47 Country Plumbing
48 Construction of Cesspools
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Suggestions for Estimating Plumbing Construction

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The importance of having a float which possesses the merit and intrinsic value of the Dirigo solderless copper float is doubtless clear to you. It obviates the constant annoyance of a leaking tank, which frequently gives the impression that fault is with the entire plumbing system and that the job is cheap. The fault is not wth the plumber but with defective materials, many times, that is sold to them.

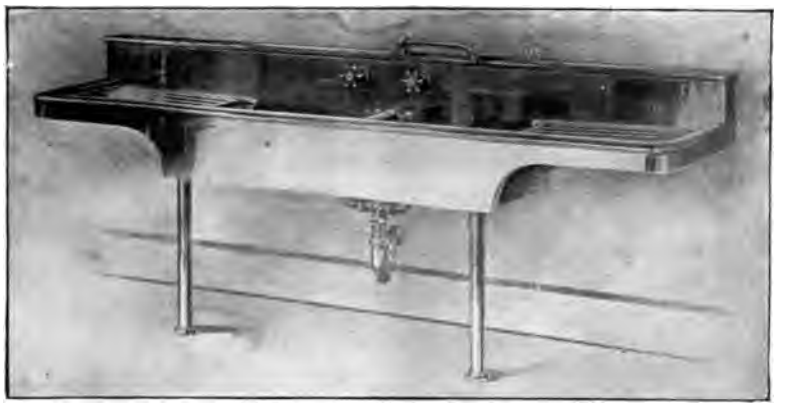
The Solderless Copper Float Co. states that it will be pleased to replace any imperfect float that bears its trade-mark, Dirigo. This should be sufficient proof of its worth. A sample order for a dozen floats, it is asserted, will convince the master plumber that this float is just what he has been looking for. A postal to Solderless Copper Float Co., 100 Lexington Ave., Brooklyn, N. Y., mentioning the MERCHANT PLUMBER AND FITTER, will bring a prompt reply.

German Silver and Copper Drain Boards.

THE Alan R. H. Burk Mfg. Co., of 2260 N. Philip St., Philadelphia, are the manufacturers of an excellent line of German silver and copper drainboards. Leading supply houses throughout the United States, Canada and Mexico are handling and distributing the "Burk" drainboards and pantry sinks.

Each and every fixture is inspected and thoroughly tested during and after construction by the head of the company, Alan R. H. Burk, who has been a lifelong specialist upon this character of work. Blue prints are continually being mailed to the Alan R. H. Burk Mfg. Co. by architects, builders and owners who have in contemplation the erection of magnificent houses. These are given personal supervision by Mr. Burk and a layout covering the particular and peculiar needs of the job is submitted by return mail.

The reputation enjoyed by the Alan R. H. Burk Mfg. Co. is an enviable one. In addition to their other splendid manufac-



tures they also turn out recess, square and oval pantry sinks in German silver and copper. They also make many special fixtures which appear in catalogues of supply houses.

We direct your attention to the design of German silver drainboard which appears on this page of the MERCHANT PLUMBER AND FITTER.

Vogel Patent Frostproof Closet.

JOSEPH A. VOGEL CO., of Wilmington, Del., are the makers of patent frostproof closets which have met with the approval of the trade.

As seen by the illustration, Outfit No. 1 is a water saver, as the depressing seat raises the rod, allowing tank to fill, after which no more water enters until closet is again used. Releasing the seat allows a

strong flush direct from tank to hopper. The water in valve casing then passes down through waste valve (below frost line) into sewer, leaving entire fixture empty. By means of pressure tank a strong flush is secured without waste of water.

Enameled inside, red outside, tall oval flushing rim, enameled rim hopper with reinforced hardwood seat, 8 x 24 inch galvanized pressure tank, flush pipe, supply and flush valves assembled with 3-foot 3-inch valve rod and casing.

Outfit No. 2 contains but one washer and flushes while in use, after which no water remains in the fixture or casing.

Enameled inside, red outside (enameled rim), hopper with brass fan wash, hardwood seat, valve assembled with 3-foot 3-inch valve rod and casing.

These closets are strong and durable, requiring no pit, and will not freeze. No cup leathers are used and valve parts can be easily removed from above the floor. A line to the above firm will bring a ready response.

Sewage Disinfection.

THE disinfection of sewage and sewage filter effluents ordinarily is not an essential feature of treatment works discharging into large bodies of water, but certain special conditions often render a sterile effluent most desirable. Where raw or treated sewage is delivered into a river from which a city further downstream obtains its water supply, the elimination of pathogenic bacteria from the sewage is most advantageous. It is common practice also to disinfect the sewage from hospitals, and occasionally, where the shellfish industry is important enough to warrant protection, disinfection is an economical and efficient method of treatment. The results to be expected from the use of hypochlorite of lime, the amount of chemical required in dealing with different cases of sewage, tank effluents and filter effluents, and the cost of treatment are subjects which have received careful study during the past. Among the well-known treatises upon sewage disinfection is the one by Professor Phelps, published in 1909 as one of the water supply papers of the United States Geological Survey. The latest information upon the subject is contained in the report of the Massachusetts State Board of Health for 1911, published recently. In this report is contained data collected at the Lawrence testing station by Messrs. Gage and Clark. The first portion of the report gives the results of laboratory tests with gallon samples, while the last part takes up the experiments in treating whole volumes of sewage on a larger scale. There is also an interesting discussion on the subject of aftergrowths of bacteria subsequent to the treatment of the sewage with hypochlorite, a matter dealt with at length recently in an article by Joseph Ellms. This recent work of the Massachusetts board is an admirable complement to its studies on the disinfection of water, and, like the latter, will repay the careful consideration of sanitary engineers.

Admiral Sigsbee's Bathtub Goes Begging.

ANY town or patriotic association desiring a practical and substantial memento of the famous old battleship *Maine* may obtain it by application to the Navy Department at Washington, D. C. There is only one relic of the kind. It is the enamelled steel bathtub in which Rear-Admiral Sigsbee, then captain, and in command of the *Maine*, was accustomed to bathe, before the ship sank.

The city of Urbana, O., applied for and received the relic, but the municipality changed its mind and obtained a 10-inch shell instead. The Navy Department does not want to pay the freight back to Washington on the tub, and is willing to turn it over to any town or association.

THE BRAYMAN WATER-TIGHT DRAIN BOX

Used by the New York Fire Department.
Prevents water from entering concrete.
Can be used for cast iron or screw pipe.
Costs no more than the old-fashioned kind.
Floor sweepings cannot clog up the drain pipe.
Water cannot leak through it to the ceiling below.
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OBITUARY

Fred. S. Schumann, New York.

Fred. S. Schumann, 332 E. 83d St., Manhattan, with a place of business at 550 E. 85th St., a member of the New York City Master Plumbers' Association, Manhattan branch, as well as several fraternal societies, died on Jan. 1, 1913. Mr. Schumann was a member in good standing of the Manhattan Association for many years. He was enthusiastic in his attendance at meetings, and was well regarded as an able and energetic associate. Whenever opportunity offered he attended the national conventions, and will be remembered as having been at the Louisville, Ky., and the Boston, Mass., annual meetings of the national association. Mr. Schumann was a photographer of prominence, many of his photographs having been reproduced in the trade papers. We exceedingly regret his death as the deceased was only about thirty-five years of age. To his widow, and relatives, we extend our sincere condolence at the sad bereavement. The funeral services were held at his residence on Sunday, Jan. 5, 1913, and were largely attended.

Benjamin C. Davis, Brooklyn, N. Y.

Benjamin Cornell Davis, a master plumber, for many years at 176 Atlantic Ave., died Jan. 16, at his residence, 621 E. 18th St., Flatbush. The funeral service was held Sunday night, Jan. 19, under Masonic and Elks auspices. Mr. Davis was born in Connecticut 58 years ago and was the son of Captain William B. and Jane Cornell Davis. His father was of an old Greenwich, Conn., family, and his mother came from Port Washington, L. I. Mr. Davis won many medals for the Varuna Boat Club in athletic meets. He was a member of Brooklyn Lodge, B. P. O. E.; Ridgewood Lodge, F. and A. M.; the Knights of Galena and the Casino Fishing Club. He is survived by his widow, Mary Frances Davies Davis; a son, George W., who is the auditor for the United States Fidelity & Guarantee Co., of Baltimore; a brother, George, and two sisters, Catherine and Louise.

John B. Reid, Wilkinsburg, Pa.

John Bothwell Reid, aged 57, a retired business man, of 708 Whitney Ave., Wilkinsburg, died Jan. 13 in the St. Francis Hospital. He was born in Pittsburgh and had been a resident of that county all his life. He had held responsible positions with the Standard Sanitary Mfg. Co. and the Duquesne Sanitary Co., retiring a year ago. Two daughters, the Misses Jean H. and Blanche F. Reid, are left. Mr. Reid also leaves two sisters, Mrs. Charles A. Forster and Miss Elizabeth Reid, both of Oak Park, Chicago, Ill.

Orrin F. Brown, Greenport, N. Y.

Funeral services were held Jan. 14 over the remains of Orrin F. Brown, one of Greenport's oldest and most respected citizens. Mr. Brown died at his home on First St. Saturday, Jan. 11. The deceased for many years conducted a plumbing and heating business, and later became interested in oyster culture when that industry became a leading business in that locality, but for the past 10 years has been retired from active business. Mr. Brown has been for years an active member of the Presbyterian Church, being a deacon at the time of his death. At different times during his life he was school trustee, police justice and justice of the peace. He was a member of Peconic Lodge No. 349, F. and A. M. The Rev. C. Miller-McKay, pastor of the Presbyterian Church, conducted the services at the late residence of the deceased, and Peconic Lodge at the interment in Greenhill Cemetery. Mr. Brown was in his 89th year, and is survived by three children—Mrs. Clarence P. Merrill, of Greenport; Mrs. Edward Russell, of Manhattan; and E. Stanley Brown, of Center Moriches, L. I.

A. F. Trageser, New York.

The trade will learn with regret the death of A. F. Trageser, president of the Trageser Steam Copper Works, New York, which occurred on Sunday, Jan. 12, 1913.

THE LATE A. F. TRAGESER, OF NEW YORK.

Mr. Trageser was 52 years of age and was actively connected with the business for the past 30 years, during which time it has grown to be one of the largest in its line. The business will be carried on as heretofore.

Howard Wentworth, Amherst, Mass.

The community of Amherst, Mass., was shocked to learn on Saturday morning of a tragedy which caused the death of Howard E. Wentworth under conditions as distressing as they were unusual. Mr. Wentworth lived in what was long known as the Edwards place on S. East St., near the Central Vermont railroad crossing. On Saturday morning, Jan. 11, he went out at about 5:30 o'clock to the barn and started to water the horses. The well, which is nearby, is about six feet in diameter. The curbing had been removed and the ground about it was quite slippery. In some way Mr. Wentworth lost his balance and fell into the well, and, unable to help himself, was drowned. His brother-in-law, Frederick Main, with whom he lived, found him dead about a half hour later. Medical Examiner Rockwell was summoned and viewed the body. Mr. Wentworth was about 25 years of age. He was a plumber by trade and had worked for several years for Charles Dance & Son, recently starting in business for himself in a shop off Kellogg Ave. He was a member of Amherst lodge I. O. O. F. He leaves a widow, daughter of Mr. and Mrs. Joseph H. Main, and a daughter, Esther, two years of age. He is survived also by his father and mother, Mr. and Mrs. Edwin H. Wentworth, four brothers, Edwin S., Henry G., Harold and Wesley, and two sisters, Aurella and Mabel, all of Amherst.

New Corporations.

SCHWARTZ & SCHWARTZ have been incorporated in New York City with a capital of $25,000. Incorporators: K. Schwartz, S. Schwartz, B. McDermott, New York City.

Manahan Bros. Heating Co., Hoboken, N. J., has incorporated with a capital stock of $50,000. Incorporators: F. L. Manahan, E. N. Denend, A. W. Bowditch, M. M. Manahan, Town of Union.

The Niagara Falls Furnace Co. incorporated, Niagara Falls, to deal in furnaces and their appliances; capital, $50,000. Incorporators: Ambrose V. Davidson, Kittanning, Pa.; William E. Taylor, Aspinwall, Pa.; Edward T. Williams, Niagara Falls, N. Y.

Standard School Heater Co., Chicago, Ill., incorporated; capital, $10,000; manufacturing and dealing in furnaces, heating and ventilating apparatus, etc. Incorporators: Schuyler C. Wilson, James K. Shearer, James E. Sellers, E. Jesse Bowman and C. A. Nixon.

Submarine Heater Co., Chicago, Ill., incorporated; capital, $24,000. Incorporators: Hermann Hausemann, Ira J. O'Malley and Madge A. O'Malley, all of Chicago.

The Louis Wanner, Jr., Inc. Co., has been incorporated at Camden, N. J., to do a general contracting, engineering and plumbing business; capital, $10,000. Incorporators: T. R. Hansell, John A. MacPeack, F. S. Garman.

Single Faucet Co., of Chicago, Ill., has been incorporated to manufacture plumbers' supplies; capital, $25,000. Incorporators: W. J. Bergens, F. W. Fullmer, R. W. Daniels, Chicago.

J. C. Callahan & Co., Chicago, Ill., $2,500; general plumbing, heating, contracting, building and construction business. Incorporators: Harry V. Mullin, Laura Parker and Harry L. Shaver.

MERCHANT PLUMBER AND FITTER

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Published Semi-Monthly at 200 Fifth Ave., New York, N. Y.

NEW YORK, FEBRUARY 10, 1913.

By the Merchant Plumber and Fitter Publishing Co.

Cost Accounting for Plumbers.

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitter.

A COST system is timekeeping plus bookkeeping. One without the other is no good, and neither is a cost system any good unless it is based on the idea of the chargeable hour.

Even as the Panama Canal, a cost system cannot be built in a day. It will require digging and digging, and then some—but it will eventually pay big dividends.

In an individual business, where the proprietor is both the employer and employe, crude systems of accounts will often suffice, but as the business grows the employer becomes more and more dependent upon others, until it reaches a stage where personal touch with all the details becomes a physical impossibility and more efficient systems of accounting become not only advisable but essential to the success of the undertaking. As the business further expands, becoming more and more complex, still greater scientific accounting methods are necessary to the carrying on of the same.

The average plumber starting in business is one who has served an apprenticeship at the trade and advanced to a journeyman. Thinking that he can make more money for himself by going into business than by working with the tools for someone else. he has worked hard and saved up a few dollars, and then started up a small shop of his own, stocking it chiefly on credit and sometimes letting his wife attend to the store during the day whi'e he is out working on jobs himself. In the evenings he will enter up his charges, make out bills, figure up estimates, attend to correspondence, etc.

It is very rarely, however, that the mechanic who engages in the plumbing business has had the advantages of any business training, and often has but very little education. He may understand the mechanical principles involved, be proficient in the line of work he undertakes and successfully pass the examination of the board of health of the town in which he intends to locate; but he knows nothing of the science of accounts or of the methods necessary to be used in order to conduct a successful business.

The head of a business has now to think of many things about which he never used to trouble himself in earlier days; and these are just the kind of difficulties for which the training of the workshop affords the least preparation. Against this, however, must be set the rapid improvement of the education to-day of the working man, not only at school but, what is more important, in after-life, by newspapers, trade journals and magazines such as the MERCHANT PLUMBER AND FITTER, from the work of co-operative societies and trades unions, and the opportunities of securing a business training at the evening classes of the commercial and business colleges, and from correspondence schools.

Without aiming at giving an exhaustive account of the manner in which the plumbing and heating business is conducted, it is, however, the intention of these articles to supply the plumbing and heating contractor with that specialized information which he may require and yet who is not in a position to secure the fullest information for his purpose, and at the same time affording him knowledge which can hardly fail to be of the very greatest assistance to him in the correct keeping of his accounts upon a system specially adapted to his requirements and therefore involving a minimum expenditure of labor. The technical points in connection with the plumbing and heating trade will receive as much attention as is necessary in order fully to elucidate the system of accounts advocated.

The writer of these articles is not only a practical plumber and fitter, having served an apprenticeship of five years and worked two years as journeyman at the plumbing and fitting trade, but has also been engaged as public accountant for the last 15 years, installing accounting systems in plumbing and heating shops, wholesale plumbing-supply houses, iron and brass foundries, and machine shops engaged in the manufacture of plumbers' supplies. And these articles will be written up from the past experience of the writer, affording the readers of this magazine the best ideas gathered from accounting systems now in use in the most progressive plumbing shops of the country.

Every system of accounting, while having one main object in view, incorporates some particular rule or rules in attaining that object; and special forms of accounts may be the result of necessity arising from the peculiar requirements of a certain business. Thus it is in the case of the accounts of the plumbing and heating business.

It would indeed be a very slack business man that did not keep a record of what people owed him, and it would almost be as slack to fail to keep a record of what he owed. Yet there are comparatively few business men who have adapted accurate accounting methods, consequently there are but few who know what their overhead expenses are and what relation or percentage such expenses bear to the volume of their sales or how much of this overhead expense should be prorated over the cost of doing work. Yet it is absolutely necessary that the plumber or other mechanic or manufacturer should know this in order to intelligently fix his selling prices and to ensure a fair return or profit to the business. There is no question that one of the hardest problems, one of the most dis-

agreeable features, is the fact that we must, to survive, do business at a profit. Now, what is the matter with our business? The simple answer is, "Knowledge of costs, not surmises or guesses."

Every plumber who engages in business should keep a set of books, with separate accounts not only for purchases and sales but also for the different expense items, such as rent, heat, light, power, salary of proprietor, clerk hire, wages of foreman, freight, express, cartage, telephone, stationery, printing, postage, insurance, repairs to tools, repairs to building, cash discounts, interest on capital invested, advertising, bad debts or uncollectible accounts, entertaining, incidental expenses, subscriptions to trade journals, association dues, shop time, or time lost by workmen in shop, etc. The books should also show what the business is worth, the value of stock on hand, the costs of the various jobs or contracts in process; what is owing for goods purchased, what is due from customers, and the profits or losses of the business.

The main function of the cost system is the careful recording of the time, both productive and non-productive, together with a proper distribution of the overhead expenses, so that it is possible to ascertain what the total number of productive or chargeable hours were, what the total number of non-productive or non-chargeable hours were, and what the proper and total cost of those hours were in a given period of time, and thus give us the actual cost of our unit of production. When we have the actual cost of our unit of production it is not a very difficult matter to record the time and material required on any particular job and thus arrive at the true cost of production of each and every job that we undertake.

The double-entry system of bookkeeping, together with a proper cost system, is the only method by which the required information can be obtained, and for a jobbing plumbing and heating business the following forms of accounts and books will be necessary:

1. Estimate book and letter files.
2. Job order book.
3. Job tickets, timecards and payroll book.
4. Stock order book.
5. Invoice or purchase journal.
6. Jobbing and contract cost book.
7. Sales book.
8. Overhead expense.
9. Selling price book.
10. Cost price book and catalogue files.
11. Cash book.
12. Check book.
13. Journal.
14. Ledger and trial balance.
15. Profit and loss statement.

These articles will also include the following subjects: "Collections and Credits," "Advertising and How to Get Business," and "School of Estimating and Accounting for Plumbers."

(To be continued.)

CREDITS

QUESTIONS SUBMITTED

By Daniel L. Van Hee,

Of Samuel Sloan & Co., Rochester, N. Y.

Together with a brief analysis thereof, and replies received from members.

THE following article contains, in a very brief way, some of Mr. Van Hee's views in regard to the matter of credits, and it has been prepared for distribution among the members of the Eastern Supply Association, largely with the idea of awakening renewed interest to the importance of this fundamental proposition:

KEY TO ANSWERS.

(A)—Letter from a New York City Jobber, under date of Oct. 4, 1912.
(B)—Letter from a New York City Manufacturer, under date of Oct. 4, 1912.
(C)—Letter from a Portland (Me.) Jobber, under date of Oct. 4, 1912.
(D)—Letter from a Washington (D. C.) Jobber under date of Oct. 4, 1912.
(E)—Letter from a Boston (Mass.) Jobber, under date of Oct. 4, 1912.
(F)—Letter from a Syracuse (N. Y.) Jobber, under date of Oct. 5, 1912.
(G)—Letter from a Troy (N. Y.) Jobber, under date of Oct. 7, 1912.
(H)—Letter from a Philadelphia (Pa.) Manufacturer, under date of Oct. 12, 1912.

Question—1. Shall the jobber allow his supplies to furnish the capital for the plumber?

Analysis—A few months ago a new firm started in business, and in the usual course of events one of the firm came to see me about credit. In our conversation I learned that there were to be three partners, all practical workmen, and they intended to do plumbing, heating and tinning; no job would be too small for the most careful attention and none too large for them to handle. Their combined capital was $300.

It took me a few minutes to get my balance, but I managed finally to whisper that we would have to begin our dealings on a cash basis. The disappointment was so manifest that I accompanied him to the door and said, "After you have been in business a little while I may be able to give you some credit on our monthly settlement plan." It may have been three or four months afterwards when the salesman who introduced this firm to me came back and said: "Well, I guess you sized that firm up all right; the partners are having trouble between themselves, and one of the firm told me they owed about $2 300."

The trouble began over one partner taking a trip to Boston, spending about $90 of the firm's money, and among their assets was an automobile bought for business purposes. With the amount of credit this firm was able to obtain, it would have been an easy matter to draw out their $300 investment, and what capital remained would be furnished by the jobber from his material sold on credit.

REPLIES—No. 1.

(A)—No.
(B)—The jobber always has supplied the capital to the plumber without interest, and probably will continue to supply the capital. If he does, then he should receive interest for the use of his money.
(C)—No.
(D)—We should not, but usually have to furnish capital for the plumbers.
(E)—No.
(F)—No.
(G)—As a rule, No.
(H)—The jobber should not allow his supplies to furnish capital for the plumber, nor compel the manufacturer to wait for his money until the plumber has paid him.

Question—2. Interest on past-due accounts or cash settlement. Which?

Analysis—On this question I have already expressed my views in two articles published in *Domestic Engineering* and *Plumbing and Heating Magazine*, and I still maintain that the maturity of our bills should mean the same as the maturity of a note or the payment of interest due on a mortgage and should be enforced. If the customer wants an extension he should be made to understand that such favors are for him to solicit, and he should go to his creditor and not make the creditor go after him. The credit man will then have the opportunity to learn the real cause for his inability to settle and on the merits of the case decide if a few days' grace are to be given, a note with interest taken or no further credit allowed until payment is made. If payments are expected between the 1st and 10th of the month, it might be understood that the "few days of grace" are the balance of the month.

Should there be no money in sight at the end of the month an interest-bearing note could be given if the financial standing of the customer warranted it. Right here I wish to explain that my argument is not against making the customer pay interest on past-due accounts, but rather against allowing the account to run with little or no effort made to secure prompt payment, and going over the accounts once a month and sending bills for interest on past-due balances. To my mind this procedure suggests that you are willing to carry the account for the interest return on your money.

REPLIES—No. 2.

(A)—Cash.
(B)—Interest should be charged on past due accounts and all bills should be stamped, stating such fact.
(C)—Cash settlements on the time basis agreed.
(D)—Our idea would be to have all the jobbers agree that after accounts are 60 days old, that they sell for cash only. A cash discount seems to effect only the plumbers who are fairly good pay, and does not seem to have any effect on the real slow customer.
(E)—Cash settlement.
(F)—Cash.
(G)—Cash preferred of course, but interest should be charged on past due accounts in every case.
(H)—Cash every time, but the person and circumstances should be considered.

Question—3. Does charging interest after maturity stimulate prompt settlement?

Analysis—My experience has been that it does not. Whenever I have sent a bill for interest to a customer who is a good financial risk I feel that if he pays the interest

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charge he is under no special obligation to us for the extra time, but has paid us for the use of our capital, and I assume that he feels about the same toward us. On the other hand, I imagine the customer who is not a first-class financial risk smiles when he looks at the bill and thinks how easy it is to get this extra time for such a cheap rate of interest.

REPLIES—No. 3.

(A)—Yes.
(B)—We believe that the charging of interest stimulates prompt settlements.
(C)—
(D)—Charging interest after maturity seems to stimulate only a few of our customers and has no effect on the majority.
(E)—At times.
(F)—Yes.
(G)—Yes, most emphatically, yes.
(H)—Charging interest after maturity is one thing, and getting it, another.

Question—4. Which enables the plumber to discount—capital or efficiency?

Analysis—By efficiency I mean good business methods, good work, prompt service, promptness in rendering bills for work done and following up collections on past-due accounts. And we all know that more money can be made on a small volume of business properly conducted than on a very large volume where the work is poorly done, finishing of contracts unnecessarily delayed, improper bills rendered with omissions and overcharges, and no system of following up collections or looking after the work in progress.

REPLIES—No. 4.

(A)—Don't understand question.
(B)—Both capital and efficiency are requisites to the discounting of bills purchased.
(C)—About 65 per cent. efficiency, 35 per cent. capital.
(D)—Both.
(E)—Combination of the two, latter is preferable.
(F)—Capital.
(G)—Both, but efficiency is the most important.
(H)—The plumber who discounts has character, energy and efficiency.

Question—5. What class of accounts usually requires extensions?

Analysis—Customers who carry an overstock of goods; who buy on 30 or 60 days' time and let their customer pay every six months, once a year, or when the crops are good; those who are doing too much business for the amount of their capital, and especially those who are lax in their business methods.

REPLIES—No. 5.

(A)—Lack of capital and lack of efficiency.
(B)—Contract accounts.
(C)—Extensions required by those employing slack office methods, and poor collecting.
(D)—The accounts which usually require extensions are the ones that are contracted by customers who overbuy, and do not look after their business as it should be looked after.
(E)—
(F)—Slow accounts.
(G)—Could not answer intelligently. Question too broad. But we find hardware dealers as a rule slow payers.
(H)—In the Micawber class, the ones who are waiting for something to happen.

Question—6. Is the average past-due account a good investment at six per cent. interest?

Analysis—No. The man who constantly carries an overstock is likely to accumulate a lot of unsalable goods. Giving long time on accounts increases the chances of loss on bad accounts. Doing too much business usually leads to carelessness and waste of good materials by employes. Lack of capital encourages the giving of extra discounts, exorbitant rate of interest on borrowed money and loss of cash discounts; and waste through lack of correct habits and business methods cannot be estimated.

REPLIES—No. 6.

(A)—No, but better get interest on slow accounts than none.
(B)—No. As the account always carried some risk and money can be invested with comparative safety on a six per cent. basis.
(C)—No.
(D)—No.
(E)—No, seldom.
(G)—No, no, no.
(H)—Depends upon the party, whether it is good or bad.

Question—7. Does the function of the jobber of plumbing and steam supplies depend on the patronage of the small dealer who cannot afford to carry a full line of supplies bought direct from the manufacturers?

Additional explanation received from Mr. Van Hee in respect to Question 7:

It has been the contention of some large plumbers and steamfitters that the jobber fosters the irresponsible dealer as an outlet for his supplies, claiming that through his backing it practically makes the jobber a partner to the small dealer and therefore a competitor of the big fellow who has the capital to buy wherever he pleases, and often from the manufacturer direct.

The question is, Would the jobber be able to make a living if he sold only to the so-called large plumber who prefers to carry a big stock and buy direct from the manufacturer?

Analysis—To my mind it does not. The fact that so many small dealers are so successful is because they are letting the jobber carry their stock of goods, and if they have to pay an extra 5 or 10 per cent. on single lots from the jobber's stock they buy just what is needed for a particular job and they save on handling, rent of warehouse, insurance, unsalable goods and capital invested much more than they could make by carrying their own stock. A large contractor said to me the other day: "The sooner we wake up to this fact and act upon it the better it will be for us."

REPLIES—No. 7.

(A)—Depends on the nature of business, no matter how small.
(B)—We don't believe it does.
(C)—Under existing conditions, yes, to a certain extent.
(D)—We do not know any plumber or steamfitter who is able to carry a full line of supplies, bought direct from the manufacturers. Some few do buy certain supplies, such as finishing material, in some cases, but we find the jobber has to finance every job.
(E)—Yes, more than ever.
(F)—Yes.
(G)—If it did he would have to go out of business. I answer, no, it does not.
(H)—Don't understand what is intended.

Question—8. Should a dealer without capital be required to give security?

Analysis—Yes! Almost every person who goes in business has some friend or relative with money who could guarantee his account, and with such a guarantee the seller would have good security and the inexperienced man would have someone with some knowledge of business affairs to coach him. If a man has no capital and no friends to back him he should look for a job.

REPLIES—No. 8.

(A)—Yes.
(B)—We assume that all dealers have some capital.
(C)—In about 60 per cent.
(D)—Yes.
(E)—Yes, on large orders.
(F)—Yes.
(G)—Yes, always.
(H)—In this case as in others, depends on the character of the dealer.

Question—9. Is it reasonable to expect prompt payment from a dealer who operates without sufficient capital?

Analysis—No! One of our salesmen came to me last week about a customer who has been discounting his bills between the 1st and 10th of each month. He said: "Have you ever told them you would not sell them unless they discount their bills? They seem to be afraid to run up a big account. I have quoted them repeatedly on carloads and I know that my price has in some instances been all right, but they don't give us the order. I am going to quote them now on two carloads, but I am afraid I won't get the order unless I can put it up to them that they can have all the time they want." I promised to look up their credit carefully, and this is what I found:

STATEMENT.

Assets—		
Stock on hand	$5,000.00	
Book accounts	2,000.00	
Cash	50.00	
Tools and fixtures	400.00	
		$7,450.00
Liabilities—		
Owing for mdse., not due	$1,800.00	
Owing for mdse., past due	1,300.00	
Owing at bank	500.00	
		$3,500.00
		$3,950.00
Annual sales		15,000.00

Is there any possibility of a firm in this condition paying bills promptly, and what can a jobber expect who sells them in carload lots but to wait until they are able to turn over this overstock?

REPLIES—No. 9.

(A)—Yes, because small dealer must be prompt collector to enable him to be prompt.
(B)—No.
(C)—This depends on the business ability of the dealer.
(D)—No.
(E)—Hardly.
(F)—No.
(G)—No.
(H)—To gauge the amount of capital to be considered sufficient is a problem, and because a man does not pay promptly does not prove that he has not sufficient capital.

Question—10. How can a credit be regulated in dealing with a moral risk?

Analysis—This question has already been covered under question No. 8—"Should the dealer without capital be required to give security?"

The moral risk may be of such a high class that security may not be necessary; for example, with a man who has acquired great skill as a workman or financial manager that you are willing to put up your capital against his ability. This, however, is nothing short of a gamble, and if possible I would like to see that element eliminated from the credit department. I therefore recommend the use of the "letter of credit."

REPLIES—No. 10.

(A)—By properly worded written agreements.
(B)—On character and ability of the buyer.
(C)—Our experience is that many dealers with small capital are more prompt in settlement than many with a much larger capital.
(D)—By obtaining security.
(E)—By making certain agreements and having them kept.
(F)—No set of rules can govern this. You have got to know the party you are selling.

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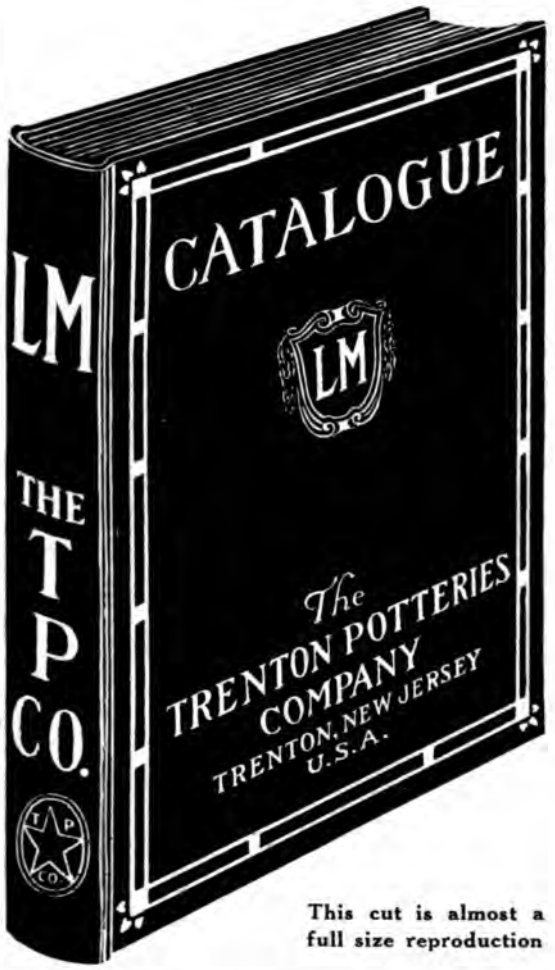

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(G)—Simply by keeping fully informed, and limiting it to a moderate sum.
(H)—What is known to be a moral risk, sell for cash.

Question—11. Shall a financial risk be allowed more liberal terms than a moral risk?

Analysis—The moral risk should pay a premium for the use of the jobber's capital and should not be encouraged or allowed to buy in quantities except where the goods are for contracts secured and in process of construction. In most cases it is advisable to make the time for payment as short as possible, and personally I am in favor of insisting on his taking advantage of the cash discounts. This will regulate the volume of business to what he can take care of and properly finance, and will do away with the possibility of accumulating many doubtful accounts.

The good financial risk should not pay a premium to the jobber for assuming unjustifiable risks, but on account of the security that his capital provides he should not be allowed "special privilege" in extra time or better service.

REPLIES—No. 11.

(A)—No.
(B)—No, but this is a question which involves detailed explanation.
(C)—We cannot answer this briefly. In a general way we treat each case individually. The last question seems to be rather obscure. We intend to fight shy of any moral risks, as one of the first requisites for a credit rating with the writer is the honesty of the party seeking credit.
(D)—It seems to us that this would depend entirely on the person or firm.
(E)—Never.
(F)—Yes.
(G)—Yes, all other things being equal, but a financial risk may be so coupled with other considerations that the moral risk in some cases would be safer.
(H)—Unquestionably a financial risk may receive some consideration, but a moral risk—none whatever.

No Sanitation for 6,000 New York Indians.

THE seven Indian reservations in the State of New York are entirely without sanitary control because neither the State Board of Health nor local health boards will assume the expense of looking after them, according to testimony given before Gov. Sulzer's State Public Health Commission in the United Charities Building recently.

There are 6,000 Indians on those reservations, says Dr. A. C. Hill, of the State Educational Department. There is no resident physician on any of them.

"What we need," declared Dr. Hill, "is that supervision of the reservations should be in the hands of the State and that there be an agent to whom teachers can apply for immediate relief for children."

Dr. Jay M. Strong, of Syracuse, a director of the tuberculosis commission of the State Charities Aid Association, said that investigations had been made on the Onondaga reservation and tubercular subjects were found in every third house. There is in the vicinity of each reservation one physician to whom the Indians may go for treatment when sick. He is appointed by the State and is allowed a flat $300 for his services and the medicines which he uses.

Dr. Hill suggested as a possibility a sanitary board composed of a member of the local Board of Health, a member of the State Board of Health and one from the State Board of Charities.

The commission was also engaged with reports of agents of the State Labor Department, who last Summer investigated contract labor camps. There were 3,000 such camps, Inspector Joseph Mayper reported, employing about 100,000 men, two-thirds of whom were aliens. The sanitary conditions were such, he said, that many of the men contracted disease, which they took back with them to crowded tenement districts at the end of the season.

The investigators did not inspect conditions in the Catskill Aqueduct camps because they came directly under the control of the New York Water Board, which inserts sanitary stipulations in its contracts. Camp conditions on the barge canal and State highways were much worse than on railroad and other private jobs.

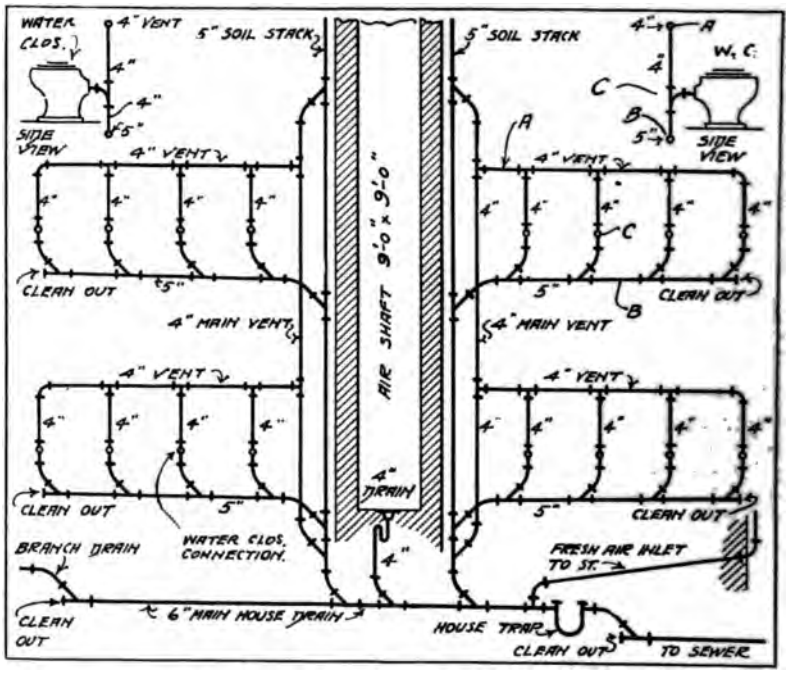
Water Closet Rear Connections and Continuous Vents.

Editor MERCHANT PLUMBER AND FITTER:

I herewith enclose sketch showing the piping arrangement of a plumbing installation completed by me a short time ago. There are eight water closets on each side of the air shaft, two main soil and vent lines and area or shaft drain. The vents are continuous, as indicated on diagram. The water closet connection to soil line is at the back of fixture, the outlet connecting to a long tee fitting as indicated on the upper corners of the diagram. All the pipes excepting the main soil line and house drain are four inches in diameter, as marked. This plumbing system is not located in Greater New York, consequently not under the supervision of the New York City Building Bureau. Kindly inform me through your valuable trade paper if this arrangement of piping is correct.

L. B. C.

New York.



PLUMBING SYSTEM, SHOWING WATER CLOSET CONNECTIONS AND CONTINUOUS VENTS.

We think that your arrangement of piping is indeed correct and that it could not be improved upon to any better advantage. The continuous vents, which are the same diameter as the soil pipes, allow a quick and good discharge of the contents of fixtures, and also cause an almost perfect circulation of air throughout the entire system. Your water-closet back discharge, connecting with long sanitary tee on branch upright soil and where vent is taken off, is as good or, in fact, better than if you first discharged into an elbow and then branched down into a 45 tee on upright branch soil. This latter method would require a great deal more space for the pipes and the vents would be too far from the closet connection, which space from branch soil to water closet would not be vented at all or would not allow a circulation of air through this dead space. We presume the shaft that drains trap is a running trap, with handhole cleanouts.

The Backus Heater Co.

THE newly incorporated Backus Heater Co. held its first meeting at Brandon, Vt., Jan. 28, and elected directors and officers as follows: Directors, Wallace Clement, G. H. Grimm, F. E. Backus, Tom W. Ray and Frank W. Williams. The officers are Tom W. Ray, president; G. H. Grimm, vice-president; Chas. F. Clement, treasurer; F. E. Backus, general manager, and Frank W. Williams, clerk.

The factory is being rapidly put into shape to resume active operations; in fact, a cordial invitation for orders has already gone out. And nobody will doubt that all orders returned will be taken care of. The company is incorporated with a capital of $50,000, fully paid in. The plant, as it stands, and all patents heretofore belonging to the various Backus heater companies, are the property of this new company. The officers are pushers. If the world is full of orders for the Backus heater at a price that will leave a profit, Brandon people may rest assured that this plant will grow, and grow rapidly.

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MERCHANT PLUMBER and FITTER PUBLISHING CO., 200 Fifth Avenue, New York

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Twenty-sixth Paper

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RULE 111. Plunge baths should be provided with a trap at least four inches in diameter, the waste from trap to bath to be reduced two diameters and this waste to be controlled by a gate valve. Overflow pipes, if provided, must be connected on inlet side of trap. Traps must be ventilated by a separate vent line extended above roof. Vent lines shall be the same size as trap and waste connection.

By referring to Plate 116 you will see this rule, 111, pertaining to plunge baths, illustrated.

The plunge bath or swimming pool is shown in section on lower right hand corner of sketch. Nearly all these pools have—or should have—their floors graded to one end of the pool, which not only gives the bather any desired depth, but also quickly empties or drains the entire pool. There are many methods of constructing these pools, depending largely upon their location, whether below grade or located on one of many stories of a present-day skyscraper. Oftentimes you find the plunge bath or swimming pool located on the uppermost story of a very tall building. This, of course, means that special steel construction must be provided in order to safely take care of the tremendous weight—if it be a large pool—of the water, also braces to take care of the pressure or spread on all sides of the plunge bath or swimming pool. The steel beams being satisfactorily arranged, the next provision is the outside shell or foundation. First the floor and sides up to the height of the pool should be arched—and strongly so—this being easily done if the steel beams are placed quite close together Then around these arches, floor and four sides is built a stone concrete wall and finished on the inside with at least one inch thickness of the best Portland cement. Then the entire interior is finished with a good glazed tile—a tile not subject to cracking or breaking. This general construction

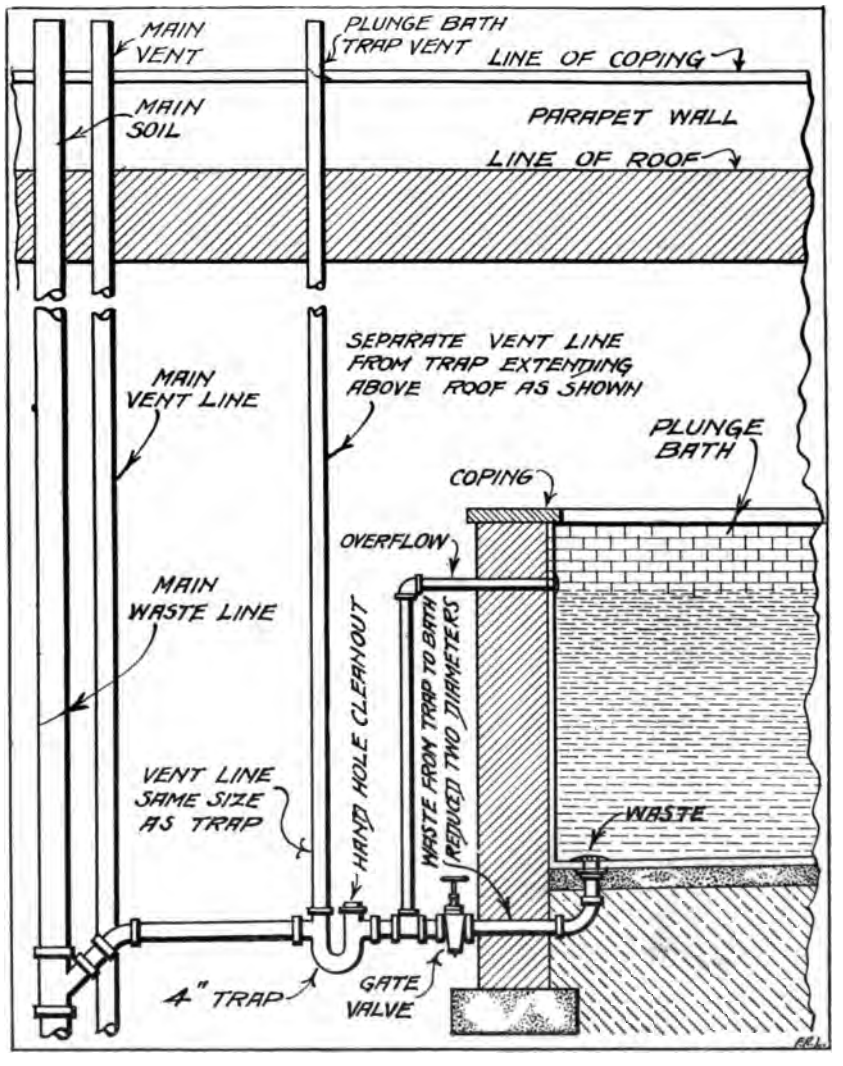

PLATE 116—ILLUSTRATING RULE 111.

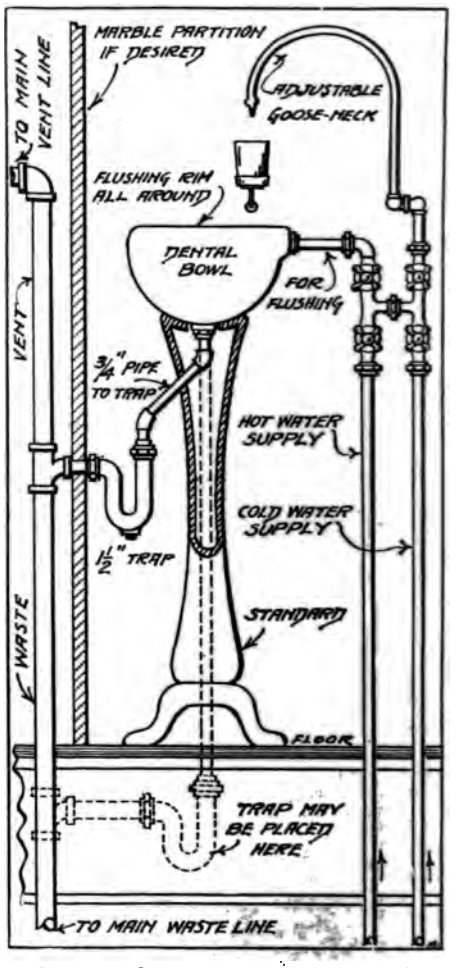

PLATE 118—ILLUSTRATING RULE 113.

produces a good and substantial plunge bath or swimming pool.

If the bath be situated in a basement or below the outside grade, the walls may be constructed of stone placed on a good, solid concrete footing and the inside finished as above. The top of the walls, whether of stone or concrete, are finished with a coping of marble, slate or other good material, such as flagstone. At the lower end of the plunge bath is located the waste or discharge pipe with strainer over its inlet. As this waste pipe may be two diameters less than the trap, which is four inches, our connection, therefore, from trap to pool is three inches in diameter (inside). Where the waste pipe comes out through side wall below bottom of plunge

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bath is placed a gate valve to empty the contents of pool when so desired. Between the valve and the trap is allowed enough space to connect the overflow pipe shown extending through wall about one foot below coping of plunge bath, and connected to waste between gate valve and 4-inch trap. We show a running trap, the same as used for house drain, called house trap. This trap, of course, has two hand-hole cleanouts, but in the case of the plunge bath we have utilized the sewer or outlet side hand-hole for the vent connection, which must not connect with main vent as shown on left of diagram, but must extend separately through roof as shown.

Assuming that the main vent line running in conjunction with the main soil line shown on the left hand side of drawing (Plate 116) is four (4) inches in diameter and of sufficient size to allow all traps on its line to discharge their contents without siphoning them, it is obvious that if we connected the four (4) inch plunge bath trap vent to this main vent line the main vent line would not be sufficiently large above this connection to allow a rapid discharge without siphoning not only the plunge bath trap, but the traps on the other parts of the plumbing system. Of course, if we enlarged the main vent above the plunge bath vent connection it would be satisfactory, but it would require a pipe equal in diameter to two 4-inch vents, and this would not only increase the cost very largely, but it might have to run from basement to roof (also increasing the cost of all fittings on the main vent line), depending altogether on the location of the plunge bath. There are many other reasons why the plunge bath trap vent should have its individual connection through roof, and the above is one of the most important.

Rule 112. The sizes for traps must not be less than those given in the above table.

Plate 117 is a schedule showing the minimum sizes of all traps pertaining to the plumbing and drainage system. The only fixture requiring a four (4) inch trap is a water closet, and the only fixture requiring a three (3) inch trap is a slop sink.

Kitchen sink, wash tray, urinal and shower bath traps must be two (2) inches in diameter, and lavatories and other fixtures one and one-half (1½) inches in diameter.

Traps for leader, area, floor and other drains cannot be less than three (3) inches in diameter.

Rule 113. Dental cuspidors must be separately trapped by a trap of at least 1½ inches in diameter, properly vented and placed as close to the fixture as possible. The connection between trap and cuspidor may be ¾ inch in diameter.

Plate 118 shows a specially designed dental cuspidor which may be placed close to the patient's chair so that it may be used without the occupant leaving his chair. The bowl is generally constructed of porcelain or some other non-absorbent material, and is set on a standard which may be of the same material or of iron, enameled—preferably white. To the left on the illustration is the branch waste and vent placed behind a marble partition, and the trap connecting to the waste fitting about two (2) feet above the floor line. The trap must be one and one-half (1½) inches in diameter as shown, and the connection between trap and cuspidor or bowl three-quarter (¾) inch as shown; this is allowable.

As the center of this standard or cuspidor support is hollow, we could, if we so desire, locate our trap below the floor line as shown in dotted, and thence connect to waste and vent branch, but keeping the top of branch vent the same height as shown, or above the cuspidor or bowl. To the right on illustration are shown hot and cold water supply pipes, with valves so arranged that we may get cold, hot or any intermediate temperature of water desired

TABLE SHOWING SIZES OF TRAPS.	
TRAPS FOR WATER CLOSETS	4 INCHES IN DIAMETER
TRAPS FOR SLOP SINKS	3 INCHES IN DIAMETER
TRAPS FOR KITCHEN SINKS	2 INCHES IN DIAMETER
TRAPS FOR WASH TRAYS	2 INCHES IN DIAMETER
TRAPS FOR URINALS	2 INCHES IN DIAMETER
TRAPS FOR SHOWER BATHS	2 INCHES IN DIAMETER
TRAPS FOR OTHER FIXTURES	1½ INCHES IN DIAMETER
TRAPS FOR LEADER, AREA, FLOOR & OTHER DRAINS AT LEAST 3 INCHES IN DIA.	

PLATE 117—ILLUSTRATING RULE 112.

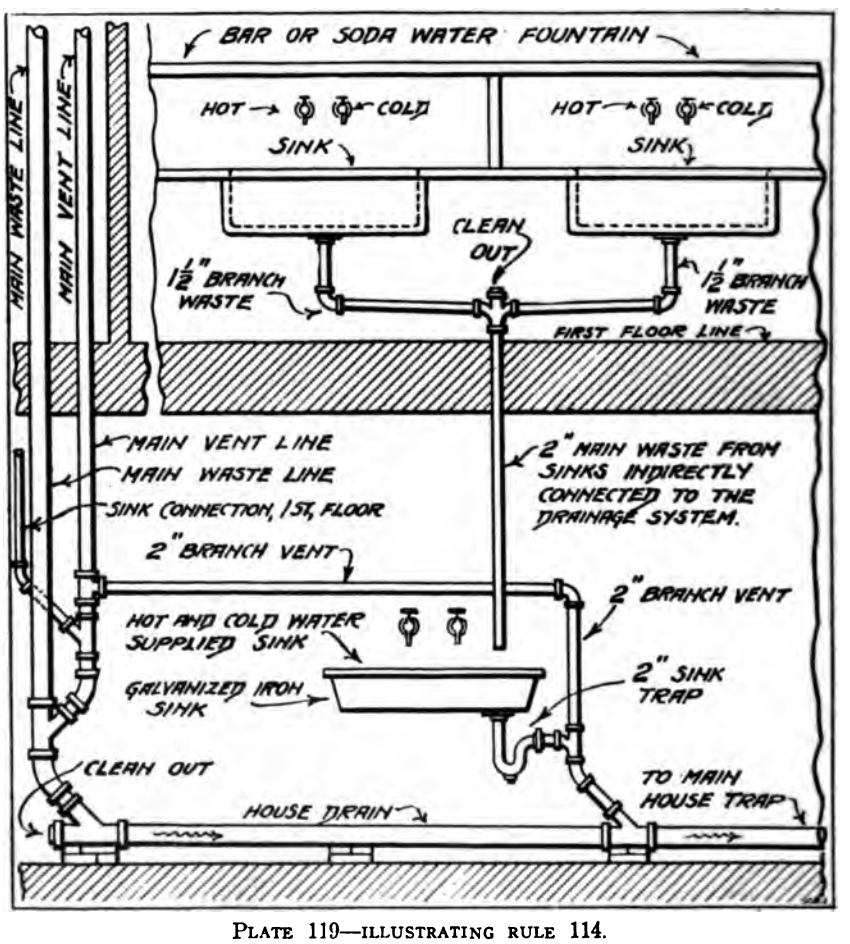

PLATE 119—ILLUSTRATING RULE 114.

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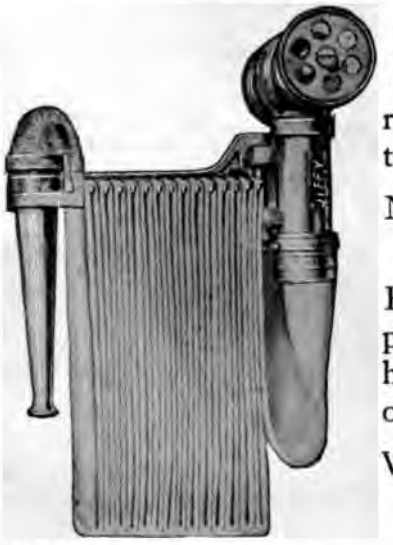

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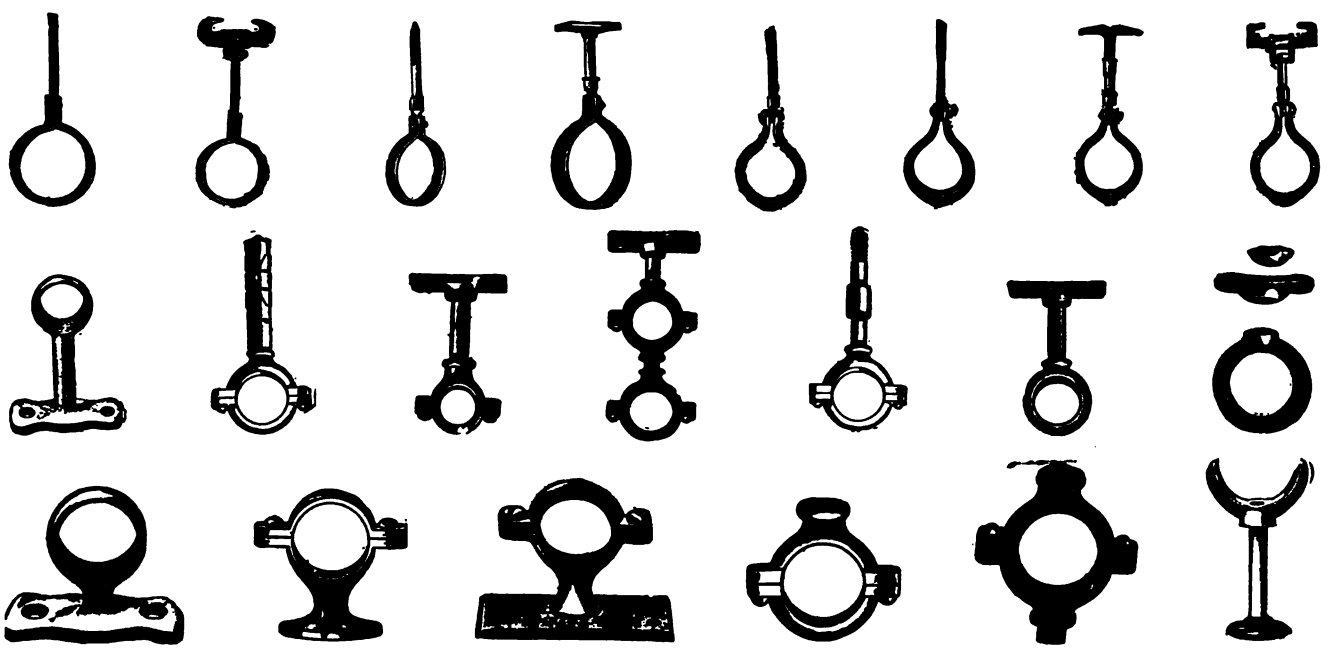


by the patient. Above the valves are two outlets, one for flusing the entire area of the inside of the bowl and the other outlet an adjustable goose-neck for filling receptacle or cup or for hose connection.

Rule 114. No plumbing fixtures, except bar sinks, soda fountains or drinking fountains, shall be installed with an indirect waste connection to the plumbing and drainage system.

The waste of every bar sink, soda fountain and drinking fountain, if not directly connected, must discharge over a properly water-supplied, trapped and vented sink. The main waste lines shall be two (2) inches in diameter, and the branches to fixtures at least one and one-half (1½) inches in diameter. Drinking fountains must be

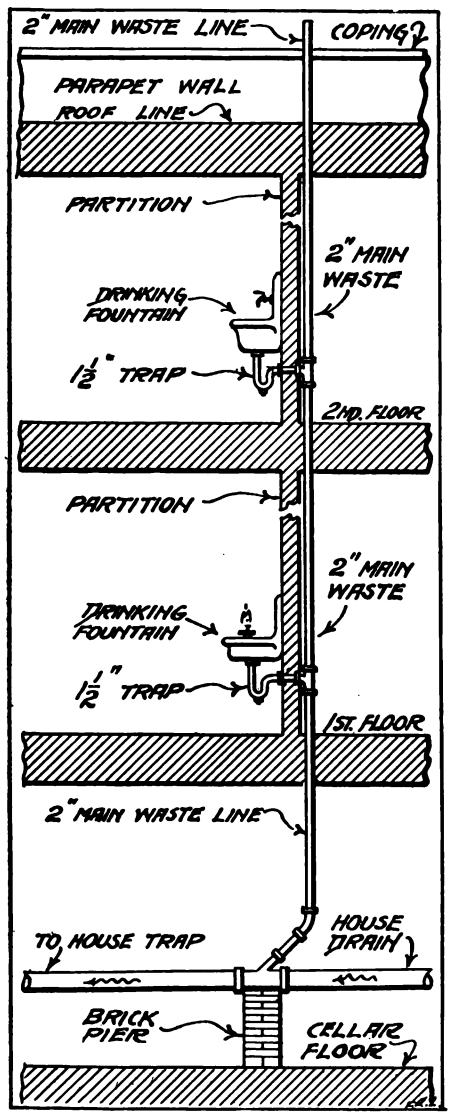


PLATE 120—ILLUSTRATING RULE 114.

trapped and the waste line extended through roof. No vent connections need be provided.

Plate 119 is an illustration showing how to connect the waste of soda and bar sinks when they are not directly connected to the plumbing system. On the left of drawing are shown the main waste and vent lines for fixtures directly connected. The galvanized iron sink in basement is directly connected, the waste to house drain and the branch vent extending over to main vent line, just below which is a "Y" branch for sink connection on first floor, which connection at all times prevents the main vent line connection with main waste line from becoming stopped up from corrosion or rust. The upper portion of sketch shows two bar or soda water fountain sinks, generally used for cleaning glasses and utensils. These sinks are largely constructed of wood or wood copper lined. Assuming that these two fixtures were installed some time after the completion of the building, and we find it impractical to make a direct connection with the plumbing system on account of the great distance from the waste and vent lines, we may connect them as shown on this sketch, indirectly.

In the first place we must have a sink in basement as shown, directly connected to the plumbing system, properly vented and water supplied. If this sink is not in we must install one. Slightly above the sink in basement and extending up above first floor and terminating with a double tee connection is our main waste between the two bar or soda fountain sinks. An inch and one-half branch waste on either side of tee is carried over to the sinks and connected thereto. This method or arrangement shows the kind of sinks which are allowed to be indirectly connected to the plumbing system. An ordinary drinking fountain may also have its waste connected in this manner and directly connected, which will be shown in the interpretation and illustration following.

Under this same rule drinking fountains directly connected to plumbing system must be trapped and the waste line extended through roof, and no vent connection need be provided.

Plate 120 illustrates this rule. It shows two drinking fountains located on first and second floors. The two (2) inch main waste extends from house drain in basement up through the floors and roof above coping. The two drinking fountain traps are connected to sanitary tees on main waste line, which tee prevents water running down main waste from entering the lower drinking fountain trap. This arrangement of main waste line also acts as its own vent—for drinking fountains only. As most drinking fountains are continually in operation or used very frequently, there is very small chance of the water seal of trap being broken from evaporation of the water.

The siphonage of the traps is prevented by the main waste line, which acts as a vent, as stated above.

Specifications for Plumbing, Fixtures, Etc.

Prepared by the Board on Uniform Plumbing Specifications for the Treasury, War and Navy Departments

Laundry Tubs (Plate No. 41).

TUBS No. 30 to be without back, fire-clay ware, with roll rim, of the dimensions shown. Stamped U. S. 30.

Legs and Brackets.—Tubs to be supported on painted cast iron legs and cast iron adjustable braces extending from legs to wall, braces to be secured to masonry walls with ¼-inch brass expansion bolts, not less than three inches long, to terra-cotta partitions with heavy toggle bolts or bolts extending entirely through said partitions and to woodwork with heavy brass wood screws. Heads and nuts of bolts to be hexagon, with rounded tops, and be nickel plated, except through bolts, which are to be provided with flat heads or washers on backs so they may be concealed by plaster.

Trap.—Tach tub to have on waste a rubber waste plug and strainer bar, and to be provided with a finished, cast brass, nickel plated, 2-inch non-siphoning trap. Floor outlet to be furnished. The nipples and pipe connections between trap and concealed piping to be standard annealed, drawn brass nickel plated full iron pipe size, with screw-threaded joints, with cast brass floor plate.

Faucets.—Hot and cold water connections to be provided for tub and fitted with ¾-inch Fuller pattern-finished brass nickel plated faucets, made so that same can be taken apart for repairs. Mechanism of faucets to be perfect in every respect. The eccentrics and stems of faucets to be perfectly fitted, and the gum ball to be secured to stem with cone-shaped expanding washer and substantial brass nut. Packing nut and gland to be so designed that a watertight, easy-moving joint will be obtained. Cold water faucet to be provided with ¾-inch hose connection, as shown.

Water supply connections to be fitted with brass gate valves, where tubs are set singly. In event tubs are set in battery, one valve on each supply is sufficient.

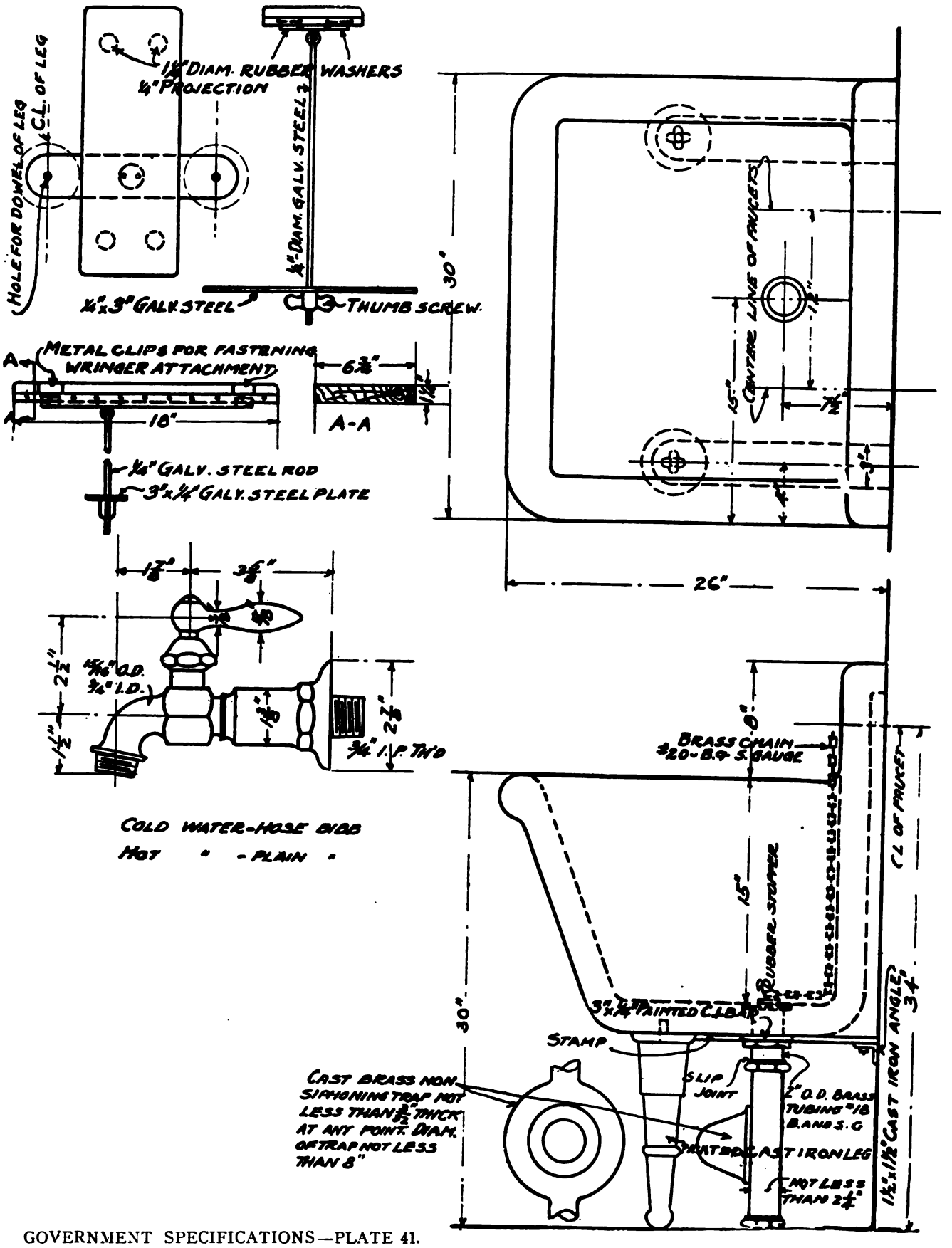
The pipe supply from main to faucets to be as called for in the specifications for the work.

Plug and Chain.—The plug chain to be attached to one of the faucets. The rings attaching plug to chain and chain to faucet to be well soldered.

Wringer Base.—Where designation number is followed by W, wringer base is to be provided for each individual tub.

Where designation number is followed by WB, wringer base is to be provided between all tubs set in battery, tubs being set with 2-inch space between them.

Wringer base to be constructed of well-seasoned ash, bound with heavy metal band, with recess dowels for wringer clamps. All of finished brass nickel plated and secured with galvanized rods and thumb-screws.



GOVERNMENT SPECIFICATIONS—PLATE 41.

Improved Air Conditions in a Boston Residence.

By FRANK IRVING COOPER.

Read at the Annual Meeting of the American Society of Heating and Ventilating Engineers, at New York, January, 1913.

ONE of the latest fields for investigation in the engineering profession is the question of the differences between the beneficial quality of indoor and outdoor air, and in it we are confronted by the enormous difficulty which always besets any truly novel investigation, that is, ignorance of the goal toward which we are traveling. We know the air conditions at present are far from good, but we are also uncertain as to what would be ideal conditions, and nothing but scientific experiment can determine them.

In this experimenting the members of the medical profession have found their interests to be in common with those of the engineers, and their efforts have resulted, not only in great advances in scientific theory and discovery, but also in the widespread awakening of public interest, which is always necessary for the successful carrying out of any reform.

That the public is really awakened is shown by the readiness with which huge corporations spend large sums for the purpose of bettering air conditions. A notable instance is seen in the great transportation companies of New York; everywhere we find huge and costly fans and elaborate devices for the proper ventilation of the tunnels. In London in the tunnel of the great London Railway there is an elaborate ozone apparatus.

The results obtained from the equipment in these and many other instances have shown that air conditions can be produced that will increase the comfort of living, even if the medical profession is uncertain as to the effect of these changed air conditions on the health and longevity of the human body.

What is needed for further improvements is that the doctors shall point out the desired conditions to the engineers, as it is at bottom a question of public health. The engineers can do little beyond mere experimentation, the doctors must analyze the effect of certain conditions of that air on the health, and, as they have been ever ready to do in the past, point out the path for future work.

Recently, at the suggestion of physicians, we have designed several plants for conditioning the atmosphere in dwelling houses and perhaps one of the most novel is the plant for Albert C. Burrage in his Boston residence on Commonwealth avenue. This plant, although completed recently, seems so successful that a description of it should be of interest. It was desired to better the air conditions of certain rooms in this residence, and this meant introducing a fixed number of cubic feet of air, which should be cleaned, warmed, humidified, and should contain an added amount of ozone.

These conditions under ordinary circumstances would be comparatively easy to accomplish, but in this case the plant had to be installed in the space between the top story and the roof of the house, a working space of only 3 ft. in height; was to be controlled from a room three stories below, and the only means to the desired end were electricity and cold water under pressure.

Under usual conditions of cost the use of electricity would have been prohibitive; the Edison Co., of Boston, however, furnish current for power and heating purposes at one-fifth the cost of current for lighting. The Simplex Electric Heating Co., of Cambridge, built for us a special electric radiator in three units; the radiator was guaranteed to dissipate enough B.t.u. to heat 200 cu. ft. of air per minute from zero to 70 deg. F.

The number of cubic feet of air is controlled by a multivane, variable speed electric fan; the air is drawn from above the roof through a hood screened to prevent the admission of paper or leaves; there is also a fine screen near the radiators to remove smaller floating particles; the air then passes through the electric radiators, then through a water bath in the humidifying chamber, where vapor created by electric immersion coils fills the air to the amount required to give the desired amount of moisture content in the conditioned rooms below; dust particles are entirely removed by the water bath, which can be renewed as often as desired.

There is an atomizing spray for washing and cooling the air; large particles of water floating in the air current are removed by inserting copper wire screens of a special Dutch weave, which entirely clears the air before it passes through the fan. Beyond the fan in the main duct is placed an ozonair apparatus, which gives an additional quantity of ozone in amount desired.

The control of the electric radiators and the regulation of the evaporating coils is made by the Powers System, which automatically throws in or pulls out the proper electric switch as occasion requires. An air pressure of 15 lbs. per square inch is required to operate the switches. In this case we installed a water-driven compressor of the Powers make.

The main electric heater was designed by Mr. Hewitt, of the Simplex Co. It is made up in three sections, similar to the different units of a steam fan system of heating, each unit being separately controlled; but where a diaphragm valve is used on a steam plant here automatic switches are employed to make or break the electric connection which completes the circuit for supplying current to the different heating sections.

The electric heater was designed to heat 200 cu. ft. of air per minute from zero to 70 deg. F. It consists of wire coils made up in the shape of a close spring ½ in. diameter and 14 ft. long. In the center of the spring is a stout asbestos cord. The spring is stretched out slightly and fastened to each end of the cord, thus keeping the convolutions of the cord separate. The spring was then looped over porcelain insulators mounted on an iron skeleton. Winding the coils in this way and using metal of low resistivity permitted a large number of coils to be used, thus obtaining a large radiating area on the surface of the wire, which means that they would dissipate their heat and operate at low temperature, thus reducing oxidation to a minimum.

There were three sections, each consisting of 4 coils, as described, connected in multiple. Each section was separate from the other electrically and was of 2 k.w. capacity on 220 volts. All three sections were, however, mounted on a single strap iron frame and covered with an expanded metal guard. Insulation between element

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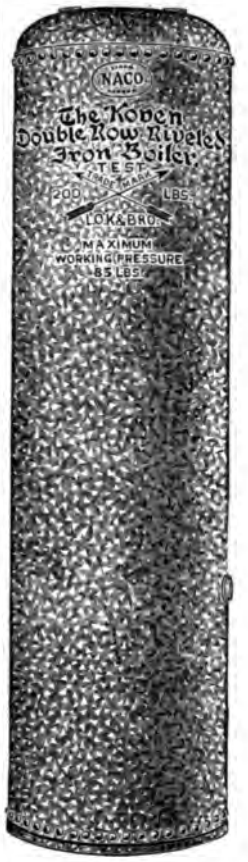

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and guard was tested to 1,000 volts. The complete heater was designed to go in a space 28 in. long, 12 in. high, 16 in. wide. The heater has given entire satisfaction.

The cold air enters from the roof through a galvanized iron duct. In traveling to the first section of the heater it passes over a cold air, expansion type, duct thermostat, which is set for 40 deg. In mild weather, or at such times as the incoming air is above 40 deg. in temperature, the first or outside section of the heater is automatically cut off.

The second and third sections of the heater are controlled by one graduated acting thermostat placed in the apartment supplied by air from this plant. It is located at the fan outlet, where incoming air passes freely over it, thereby allowing close regulation. This thermostat is the usual one employed by the Powers Co. for graduated damper work. Through its capability to graduate air pressure delivered to the second and third diaphragm motors, which are supplied with differential springs, a range of 2 deg. is maintained by the use of one instrument.

The diaphragm motor controlling the second section of the heater is supplied with a pair of springs which are considerably weaker than those on the third motor, so that it takes less pressure to throw the second switch than it does the third one, the difference being enough to allow two degrees variation between the opening and closing of the two sections. The graduated thermostat is adjustable over a range of 20 deg.—from 60 to 80—and can be set for any temperature between these points by the use of a detachable key which is used to turn a marked dial over a graduated scale plainly shown on the cover of the instrument.

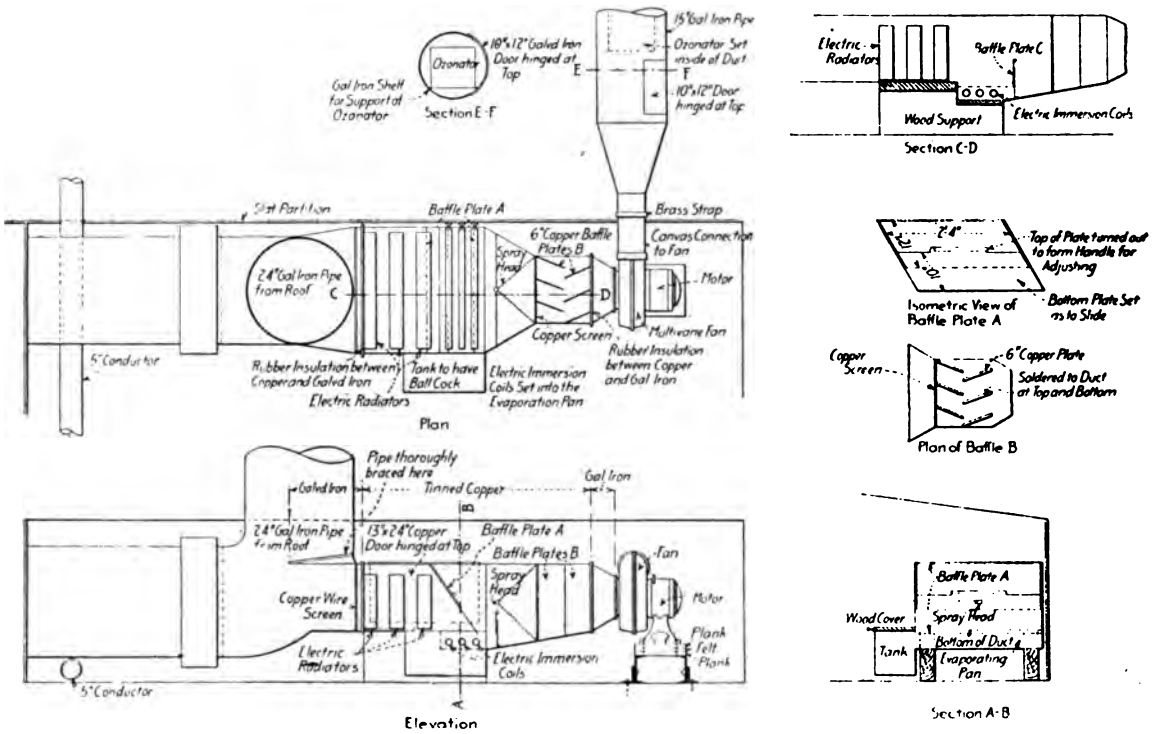
As explained above, the moisture is admitted to the air which has passed through the main heater. This is accomplished by three electric immersion coils placed in the bottom of an evaporating pan. These coils are kept covered with water automatically; they were designed by Mr. Hewett and are of the type such as are used in electrically heated steam boilers and large capacity water heaters. They consist primarily of a wire wound in spring form about as described in the air heater. In this case, however, a notched piece of mica is put in between each convolution. This is put in in such a way that does not permit it to fall out. The convolutions are therefore insulated from each other, and, as the mica extends beyond the periphery of the coil, it insulates the heating element from the tube in which the element is placed. The mica dividers each have a hole in the center, which permits a $\frac{3}{16}$-in. rod to be pushed down the center of the coil, making it a straight rigid unit. Terminal blocks are attached at each end; the central rod forms the electrical return, thus permitting the heater to have its supply terminals at one end.

This unit was slipped into a brass tube, 1¼ in. outside diameter, No. 16 gauge, which had one end sealed and the other provided with a flange and threaded for a nut, which permitted the tube to be locked into the wall of the vessel, resting one end on the bottom. The joint was made tight by a gasket.

There are three heaters, each to evaporate about 4 lbs. of water per hour; each heater was of 1,100 watts, 220 volts, single heat, and was 27 in. long. The wire used in the water heater was altogether different from that used in the air heater. The number of heat units dissipated per unit area on the water heater is large and the element within the tube runs very hot. The wire is a nickel chromium alloy which will stand very high temperature without oxidation. Most forms of insulation would break down under such a condition, but the large number of mica washers which stand edgewise to support the coil easily stand up under the work. The current of this heating coil is automatically regulated by a Powers Hygrostat placed in the living apartments on the same panel with the thermostat which controls the temperature.

It was impossible to use lengths of galvanized iron pipe, as is the custom on automatic control work, so flexible armored lead tubing was used to supply thermostats and hygrostats with air pressure and also to make connections between these instruments and the four diaphragm motors used. The tubing was extended from the air storage tank, along the under side of the roof, to the flue that leads to the room —from where it was dropped into the flue and connections made to the controlling instruments by running the lines on the inside of a cabinet—thus exposing none of it in the rooms. From the thermostats and hygrostats return lines were carried back the same way to the different diaphragm motors. Very little cutting and no patching was necessary to install this system, which is working to the satisfaction of all concerned.

The atmosphere is pleasant and restful, and the effect of the conditioned air is already distinctly beneficial. While it is too early to declare with positiveness that the proper adjustment of heat, moisture and ozone has been reached, we have all of these under control and shall be able to meet any particular requirement of the attending physician.



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Motion Picture Theaters.

Report of Committee appointed in 1912 by the American Society Heating and Ventilating Engineers, on Proposed Standards for Ventilation Legislation for Motion Picture Theaters.

VENTILATION and sanitation requirements cannot be too strongly emphasized when dealing with question of legislation relating to motion picture show places. The widespread neglect, in a very large number of communities throughout the country, of proper ventilation and sanitation in such theaters has many times been correctly characterized as a "menace to public health"—materially affecting the moral tone as well.

Allowing the great importance of fire protection and structural requirements for the protection of life, elimination of low class vaudeville, enforced lighting during performances, supervision of pictures exhibited, and other essential matters for the protection of morals, ventilation and sanitation requirements loom up large for the protection of health.

The committee has been appointed to deal with the subject of ventilation, and this question is, of course, vitally concerned with all the conditions of the air breathed, particularly temperature, air purity, air motion, humidity and freedom from dust (impurities from breathing, skin exhalations, dust, etc., being constantly released in large quantities in every audience hall).

With a view to suggesting minimum requirements that are practical to secure the following recommendations are made as standards for legislation to cover this important phase of the needed general regulations for motion picture show places.

MINIMUM VENTILATION STANDARDS.

FLOOR AREA FOR OCCUPANT.

A minimum of 4½ square feet of floor area as a seating space, per occupant, exclusive of aisles and public passageways shall be provided in the audience hall.

CUBIC SPACE PER OCCUPANT.

A minimum of 80 cubic feet of air space per occupant shall be provided in the audience hall.

QUANTITY OF OUTDOOR AIR.

A positive supply of outdoor air from an uncontaminated source shall be provided the audience hall at all times while the show place is open to the public, and the quantity of this positive supply of outdoor air shall be based on a minimum requirement of 15 cubic feet per minute, per occupant.

TEMPERATURE.

The temperature of the air in the audience hall shall at all times, while the show place is open to the public, be maintained throughout at the breathing line (persons being seated) within the range of 62° F. to 70° F. (except when the outside temperature is sufficiently high not to require the air supply for ventilation to be heated). The temperature distribution and diffusion of the supplied outdoor air shall be such as to maintain the temperature requirement without uncomfortable draughts.

DIRECT HEAT SOURCES.

Any good heat source which does not contaminate the air will be accepted to supplement the warmed outdoor air supply. Gas radiators are prohibited.

MACHINE BOOTH VENTILATION.

Enclosures or booths for the motion picture machines shall be provided with special exhaust ventilation, with a capacity to exhaust at all times not less than 60 cubic feet of air per minute through a one-machine booth, not less than 90 cubic feet of air per minute through a two-machine booth and not less than 120 cubic feet of air per minute through a three-machine booth.

This ventilation shall include a number of small metal screened openings (equipped with special dampers and automatic appliance with fusible link to automatically close tight in case of fire in booth) on the sides of the booth near the bottom of same, aggregating 180 square inches for a one-machine booth, 210 square inches for a two-machine booth and 240 square inches for a three-machine booth; and this booth exhaust ventilation shall also include a

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metal or other fireproof flue extending from the top or side at top of booth and carried to proper place of discharge outdoors and augmented by mechanical appliance, or otherwise, to secure the results of handling at least the quantity of air herein stated as minimum. The size of this special fireproof vent flue shall be not less than 96 square inches clear area for a one-machine booth, not less than 120 square inches in clear area for a two-machine booth and not less than 144 square inches clear area for a three-machine booth, and this special vent flue shall be provided with an adjustable damper operated from the booth and equipped with an automatic appliance and a fusible link to operate to automatically open damper wide in case of fire in the booth. The machine booth ventilation shall be kept in operation at all times when the booth is in use.

General questions—such as inspection, method of enforcing the requirements, penalties for non-compliance, etc., are left for each State, town or city to determine, although some suggestions covering these matters are made in the following general remarks:

It will be noted that the foregoing regulations are simple and that violations may be readily detected, also that care has been exercised to leave large latitude for design of the ventilating apparatus.

It should be especially noted that the foregoing regulations call for a minimum of all requirements as compulsory, and that it should be the aim of the administrative department having enforcement of the regulations in charge to encourage motion picture show owners and managers to provide as comprehensive, liberal and high-class equipment as possible, with a view to catering to the comfort and health of the patrons and thus add to the popularity of the show place as compared with others which may have barely come within the legal requirements.

The minimum of 4½ square feet of floor area per occupant called for by the recommended regulations considers the seating space to be 32 inches back to back of seats, with a width for individual seat of 20 inches. The 32 inches has been demonstrated as desirable to provide for reasonable passageway. The general regulations would probably cover these dimensions.

The 80 cubic feet of air space per occupant, called for by the recommended regulations, has been arrived at as a minimum cubic space per individual under which fairly good air conditions can be secured, and it will be noted that this requirement, when taken in conjunction with the floor space requirement, automatically provides that the ceiling height in the small show place will average about 16 feet in the clear as a minimum.

Elimination of dust from the air supply by means of air filters or air washers is desirable under the best conditions and is imperative under some conditions of especially dusty air supply. This question is dealt with by suggestion in the following general clauses. The controlling of relative humidity is desirable to obtain whenever possible, but the committee decided to omit from the regulations any humidity requirement.

The machine booth ventilation, as per recommended regulations would be improved especially for summer conditions by providing a duct connection from out of doors to the bottom of the booth, for the introduction of outdoor air directly to the booth, such a duct, to equal in size the special exhaust duct referred to in regulations for the different size booths should be made of metal and should pitch from the booth downward to the outside wall of the building and be provided at the inlet with a weather protection hood. An adjustable damper should be placed in this duct connection near the booth, under control in the booth and independently equipped with an automatic appliance and a fusible link to operate to close automatically in case of fire in the booth.

Strong emphasis is placed on the need of having the administrative feature of legislation, of the kind here advocated, placed in the control of a responsible department, such as a State Board of Health, in the case of villages, but preferably some other responsible local department for cities, and that such departments be supplied with a special inspector or inspectors experienced in heating, ventilation and sanitation, and that such department be given reasonable latitude by legislation, such as to require approval of plans preceding installation, or to require special extra equipment for special cases; such as dust filters for air supply, where the air supply is specially dust laden; exhaust ventilation of toilets where building laws do not properly cover this matter; fans in auditorium proper to keep the air in motion, where diffusion is insufficient, etc., it being made clear in the legislation that such latitude should in no case include the right to reduce the stated minimum requirements recommended for legislation. The administrative department should also be given the support of other local or State departments, as the case may be, such as the Fire Department, Police Department, Health Department, etc.

Definite penalties, such as fines for minor offences up to a suspension or revoking of licenses for important or repeated violations, are certainly indispensable to get practical results.

When it is realized that in New York City alone over 300,000 (nearly one-third of a million) individuals attend motion picture show performances daily; that in an average audience hall without ventilation the air is constantly being rebreathed, to say nothing of various other contaminations of the air content, and that high temperature of air with its debilitating effects is very difficult to prevent except through the medium of ventilation, a greater demand will be made on the part of the public for proper ventilation.

FRANK T. CHAPMAN, Chairman.
BERT C. DAVIS,
JOSEPH GRAHAM,
J. W. H. MYRICK,
THOMAS BARWICK,
E. L. HOGAN,
W. W. MACON,
Committee.

Illinois Master Plumbers' Association Celebrates Twenty-first Convention.

SPRINGFIELD, Ill., Jan. 28, 29 and 30, was a mighty busy business center. The occasion specially was the attaining of its majority by the Illinois Master Plumbers' Association. The 21st annual convention was indeed a success. The convention headquarters was the St. Nicholas Hotel. The sessions which were all rather of an executive nature, were held in Arion Hall.

The following local associations were represented by the delegates, whose names we are happy to append:

Alton: Percy Kortkamp, F. R. Heskett, R. P. Kennedy.
Atlanta: E. Bouillon.
Aurora: J. J. Ruddy, T. E. Walters, L. D. Krumlauf.
Beardstown: H. C. Keil, W. P. Beatty.
Belleville: U. J. Stoltz.
Bloomington: M. J. Reilly, Frank Sullivan, William Johnston, John P. Lowry.
Canton: William Luker, J. P. Murphy.
Carlinville: D. E. Sexton.
Carthage: E. F. Abbott.
Champaign-Urbana: R. F. Young, L. W. Apperson.
Charleston: John M. White.
Chicago: E. J. Benning, E. C. Wagner, William J. Lang, C. J. Boyd, F. W. Page, P. M. Murphy, C. J. Stein, F. J. Bohn, C. A. Dreier, Paul Jacoby, M. L. Mandable, John Kleker, C. J. Herbert, F. N. Kiesgen, J. C. Naughton, William F. Bahn, Henry Breyer, L. Clausen, C. C. Breyer, P. J. Foley, George Franklin, W. D. Kelly, C. F. Taffe, George Schey, F. J. Dillenburg, William F. Knause, B. E. Lynam.
Danville: E. J. Ryan.
Decatur: O. J. Zimmerman, T. E. Downing, Fred Schlie.
Eastern Lake County Association: A. M. Lanyon, J. L. Frye, J. T. Clifford.
East St. Louis: M. J. Kickham, B. Vodde, Thomas McEvilly, John C. English.
Elgin: L. F. O'Flaherty, R. W. Bridge, Martin T. Runge, Charles Brinton.
El Paso: Eve Bros.
Evanston: George S. Moore, George Park, Geo. Kearney, Fred Luettig, Robert G. Saxer.
Fairbury: Charles B. Day.
Granite City: W. G. Bergner.
Geneva-Batavia: N. O. Nelson.
Havana: J. F. Dare.
Highland: Louis Knoebel.
Joliet: Robert Meers, W. L. Eriksen, L. Henschen, J. G. Pochner.
La Grange: George I. Kelley, M. Decker, James W. Castle, F. F. Schwenck.
La Salle-Peru: R. H. Bradbeer, John Hynds, William A. Schmoeger.
Lincoln: W. E. Bouillon, W. A. Jones.
Mason City: John L. Robertson.
Mattoon: A. C. Hanson.
McLeansboro: Charles Sturman.
Monmouth: J. N. Herdman, I. M. Eastman.
Monticello: H. P. Harris.
Mt. Carmel: L. W. Kamp.
Mt. Sterling: A. W. Smith.
Nauvoo: A. C. Rahn.
Northern DuPage Co.: F. A. Goetz, E. Bradley, Robert Patch, H. H. Putnam.
Peoria: Thomas Cody, Theodore Kasjens, M. S. Hitchcock, Thomas McQuellon, Fred Siefert, Jr.
Plainfield: J. R. Jones.

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For Hotels, Apartment Houses, Residences, Office Buildings and Industrial Plants, installed under

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To Remove Bacteria, Color and Turbidity

Louis Wheelwright & Bro.

Flatiron Building NEW YORK

DELAWARE and HUDSON CO.

ADVANTAGES OF AN INDUSTRIAL LOCATION

This railroad extends from the coal fields of Pennsylvania to connections with all the great railroads of Canada and the Eastern trunk lines; provides a fast freight service to the East, West, North and South, and parallels the upper Hudson River, also the new two-thousand ton barge canal connecting the river with Lake Champlain, now being built by the state. An establishment located in this territory receives the benefit of cheap fuel, electric power and low freight rates.

Its Industrial Department will aid in the establishment of industries, develop side track questions and give complete information.

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INDUSTRIAL AGENT
Albany, N. Y.

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Wrought and Cast Iron Pipe and Boiler Tubes, Brass and Iron Valves, Etc.

Plumbers, Gas and Steam Fitters' Supplies.

Pipe Cutting to Sketch.

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is practically indestructible. The "DIRIGO" is made from pure heavy gauge copper and locked seamed. All joints and seams are of sufficient rigidity to prevent the ball from collapsing under any conditions that surround its use in closet tanks. *We will always cheerfully replace any imperfect Float that in spite of our caution passes inspection.*

Offered to the trade at a reasonably low price. Our experience proves that its merits have been appreciated by the trade. Just the kind of a Float you want. Not a particle of solder or other material used in its construction. Guaranteed ABSOLUTELY WATER-TIGHT. It can be procured from all first-class dealers in plumbers' supplies.

Solderless Copper Float Co.

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Princeton-Mendota: Charles L. Greenwood, T. E. Norton.
Quincy: James H. O'Neill, Seward Best.
Rock Island: A. M. McNeill, J. W. Ward, F. L. Yerbury.
Rushville: A. C. Rowland.
Silvis: H. J. Schmidt.
Sparta: Matt Sproul.
Springfield: Charles Kiebels, George Lennan, Henry B. McVeigh, C. H. Willey, John F. Willey.
South Cook County Association: William Hildeman, E. H. Clark, E. A. Fronger.
South Henry County Association: H. A. Dustin, H. C. Albrecht.
Streator: Wood Mulford, J. A. Huggans.
Taylorville: H. E. Winslow.
Whitehall: W. W. Evans.

The initial session of the convention was opened by President W. J. Hilliard, who felicitated the attenders upon their large numbers, and who briefly laid before them the purposes of the meeting. The local chief executive, Mayor Schrepp, offered the members of the convention an official and cordial welcome, expressing his gratitude at the wonderful advancement generally in sanitation, but particularly of the great strides made in the Capitol city.

Mr. T. E. Walters, of Aurora, was selected to respond to the felicitations of his honor, the Mayor, and his address was one long to be remembered. Mr. Walters gave considerable scope of a trade nature to his talk, and he spoke of the local association and its achievements. He also addressed some time to the marvelous progress of the craft during the past decade.

The report of the secretary, W. C. Haviland, was presented, some portions of which follow:

SECRETARY'S REPORT.

"Among other things contained herein, I wish to impress on members the important necessity of figuring sufficient overhead expense when submitting the price on a contract. It is also a pleasure to me to tell you of the creditable work of the local organizations. Outside of Chicago there are 41 local organizations, the number of members on the books being 299. During the past year seven new locals have been formed: The Eastern Lake County, Genesee, LaSalle-Peru and Spring Valley, Princeton and Mendota, Maywood and Melrose Park, Park Ridge and South Henry County, and Galva and Cambridge. The total membership of the State is 918. The membership is spread throughout 94 cities in the State."

President W. J. Hilliard's annual report was then in order. Among other matters of importance referred to was the preparation of a new plumbing law and code, which he was sure would prove generally satisfactory.

The State Board of Health and an examining board were two of the features contemplated in the new code. The examining board is to have charge of the issuance of licenses and is to have charge of the inspection of plumbing outside of Chicago. Cities of 10,000 population and over will appoint their own inspectors.

Mutual insurance as an offset to workmen's compensation, was also referred to by President Hilliard. Each member was urged to insure himself as an economical and protective measure.

In connection with the renting space in the exhibit hall President Hilliard remarked that every available inch of space had been contracted for by the manufacturers and jobbers.

The following officers were elected: President, W. J. Hilliard, Elmhurst; first vice-president, C. D. Brownell, Champaign; second vice-president, John L. Robertson, Mason City; treasurer, O. W. Dawson, Decatur; secretary, W. C. Haviland, Aurora.

The following committees were appointed: Credentials — George Moore, Evanston; John L. Robertson, Mason City; Charles Greenwood, Princeton. Resolutions—T. E. Walters, Aurora; J. T. Clifford, North Chicago; Charles Taffe, Chicago; R. P. Kennedy, Alton; M. S. Hitchcock, Peoria. Memorial—C. J. Stein, Chicago; W. L. Ericson, Joliet; H. B. McVeigh, Springfield. Auditing—B. E. Lynam, Chicago; Thomas F. Cody, Peoria; George Kearney, Evanston.

National President Frank J. Fee, elsewhere engaged upon National business of importance, regretted his enforced absence in a telegram of felicitation. He thanked the association for its support and valuable co-operation with the National office.

The workmen's compensation act was discussed at length by David Ross, secretary of the State Board of Labor. Mr. Ross's discussion of this timely proposition was an intensely interesting one.

The "Production of Sanitary Vitreous Pottery" was presented on behalf of the Peerless Selling Co., of Evansville, Ind., by their popular salesman and globe trotter, Harry Snow. Fifty illustrations were exhibited by Mr. Snow, while the lecture was read by Mr. Harry de Joannis, of the *Metal Worker*.

Stanley L. Krebs, Philadelphia, addressed the convention upon "Business Building and Salesmanship."

H. R. Dillon, American Radiator Co., produced an illustrated talk concerning house heating, coal consumption, boilers and vacuum cleaners.

E. B. Denny, National president of the steam fitters organization, addressed the meeting upon subjects of importance to all the members, particularly so the members who are affiliated with the Steam Fitters' Association.

The entertainment features proved interesting to all those present. At the banquet an attractive menu card was furnished by the Leader Iron Works, of Decatur, Ill.

A box party at the Majestic was extended the ladies attending the convention, and upon Thursday afternoon they enjoyed an automobile ride to the Sun Parlor of the Leland Hotel, where a singing concert was presented for their entertainment by a popular professional artist.

The manufacturing, jobbing and specialty trade was splendidly represented. The following prominent concerns were represented: Blake Specialty Co., Pittsburgh Water Heater Co., National Plumbing and General Supply Co., Compound Injector & Specialty Co., Thomas & Smith Co., Leader Iron Works, Illinois Pump and Brass Co., H. Mueller Manufacturing Co., The Vaile-Kimes Co., M. & H. Foundry Co., Peerless Selling Co., George J. Roberts Co., The Humphrey Co., United Pump and Power Co., Double Blast Mfg. Co., and many others.

Newark Master Plumbers Entertain Ladies and Guests at Banquet

THE 18th annual banquet and ladies' night of the Newark (N. J.) Master Plumbers' Association was fittingly celebrated at L. Achtel-Stetter's banquet hall, Broad St., Newark, N. J., upon Thursday evening, Jan. 30, 1913.

Previous grand times enjoyed by trade attaches at similar functions led some 400 persons to attend what proved to be the most successful banquet and ladies' night which this progressive organization ever held.

As early as 7 o'clock guests in quantity began to arrive. The ladies divested themselves of outer garments and entered the reception rooms, where they met and conversed with friends until the signal for the grand march was given, when they were joined by their escorts and paraded into the banquet hall. Mayor Haussling, with his wife, led the march and was followed by prominent national, State and local association officials, included in which were former National President A. Selden Walker and wife, former National Secretary Samuel F. Wilson, Louis Maier, president of the Newark (N. J.) local for many years; New Jersey State President George Turner, Asbury Park, N. J.; National State Vice-President Harry J. Farrell, Camden, N. J.; State Secretary Henry Baillett, J. J. Turbett, Elmer Lutz, Charles McGuire, Joseph A. Sprouls, chairman State legislative committee, Robert Bebla, all accompanied by ladies, and a host of other craftsmen of equal celebrity.

The dinners which are served yearly by the Newark Association have always made a hit with the craft, and this year's excellent menu was no exception. We append same herewith:

Grape Fruit Marasquino.
OYSTERS.
Blue Point.
Green Turtle Anglaise.
RELISHES.
Celery. Salted Almonds. Olives.
FISH.
Planked Shad in Bordure.
ENTREE.
Filet Mignon Cheron.

COLWELL LEAD COMPANY

Manufacturers and Jobbers of

Lead Goods and Plumbing Supplies

BRONX BRANCH
3103 Third Avenue

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NEW YORK

BROOKLYN BRANCH
359 Pearl Street

DETROIT, MICH. WINDSOR, CANADA

Potato Croquettes.
Sorbet.
ROAST.
Vermont Turkey.
Chestnut Stuffing. Cranberry Sauce.
Chiffonade Salad.
DESSERT.
Biscuit Tortoni. Assorted Fancy Cakes.
Roquefort. Camembert.
DEMI TASSE.
White Rock. Melachrino Cigarettes.

A splendid two-hour repast was enjoyed by the many ladies and gentlemen, and after the cigars, with the ladies' permission, had been illuminated, the orators of the occasion were produced, and they interestingly held forth upon set and impromptu toasts.

When the last local Demosthenes had earned his unstinted applause, dancing was engaged in, and lasted indefinitely. The orchestra was extremely liberal with the musical numbers, and a rare evening was spent.

Successful management has always asserted itself in connection with the affairs conducted by the Newark local. The officer to whom praise is due for the occasion so magnificently celebrated follow: Louis Maier, president; Charles F. McGuire, vice-president; H. F. Baillet, recording secretary; M. T. Baudermann, financial secretary; F. J. Sturn, chancellor of the exchequer, and Robert Berla—dear, old Bob!—sergeant-at-arms.

The following triumvirate are the honored and honorable trustees: James F. Hanley, Matthew J. Brady and Samuel F. Wilson.

Chairman J. J. Turbett of the entertainment committee was ably assisted by Secretary Elmer Lutz, Treasurer F. J. Sturn, Robert Berla, Matthew J. Brady and Louis Maier, ex-officio.

The ladies' reception committee embraced the following charming mesdames and one miss: Mrs. J. J. Turbett, Miss Vara Lutz, Mrs. F. J. Sturn, Mrs. Robert Berla, Mrs. M. J. Brady and Mrs. Louis Maier.

An entertainment under the direction of Prof. Ball presented a number of professionals, who regaled the company with classic and popular pieces, many of the choruses of which were joined in by the talent. The same talent, you know, which invariably offers "Little Annie Rooney," "Honey Boy" and others of equally ancient vintage, but which make a big hit each year.

To present a list of the master plumbers who were present, with members of their families, we might simply insert a copy of the Newark (N. J.) masters in the "red book." It certainly seemed as if they were all there.

The trade interests were generally represented. We present a list of those known to be present: The H. Mueller Mfg. Co., the Atlas Brass Co.; William S. Roe and Franklin Mulligan, of W. S. Roe; the Standard Oil Co., John D. Rockefeller; the Boynton Furnace Co., the Peerless Selling Co., O. W. Gleason; the Richardson & Boynton Co., the Glauber Brass Co., the H. B. Smith Co., the Faitoute Iron & Steel Co., the Macknet & Doremus Co., the Crane Co., the A. W. Birdsall Co., the Alberene S. S. Co., W. H. Crookston & Bro., Crane & Milligan, Wm. E. Cavanagh, the American Radiator Co., S. Norton & Co., the W. H. Page Boiler Co., Benjamin Wullach, in person; the Graff Furnace Co., Ernest Matthisen, the Van Ness Slate Co., Tom Hoover, J. G. Hetzel, the John Douglass Co., Howard James, and Esselgroth & Co.

Wisconsin State Association of Master Steam Fitters.

THE annual convention of the Master Steam and Hot Water Fitters' Association of Wisconsin was held at Milwaukee January 14, 1913.

The election of offices resulted as follows: President, John F. Ahern, Fond du Lac; Vice-President, Hugo O. P. Franke, Milwaukee; Secretary and Treasurer, Fred. Kaufmann, Milwaukee; Recording Secretary, F. H. Meadows, Milwaukee; Board of Directors, Edmund Grassler, Milwaukee; Frank Kraft, Kenosha; Albert Luebke, Milwaukee; Charles J. Fox, Milwaukee; E. H. Sonnemann, Sheboygan.

San Francisco Master Steam Fitters Elect Officers.

AT the annual meeting of the Master Steam and Hot Water Fitters' Association, California, the following gentlemen were re-elected to serve for the ensuing year:

President, W. E. Burnham; Vice-President, C. Schmid; Treasurer, John G. Sutton; Secretary, T. F. Dredge; Directors, F. Lyman, W. D. Stewart.

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DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

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Credits, Questions Sumitted Thereon and Replies Received.

The Eastern Supply Association has distributed a valuable treatise, by Mr. Daniel L. Van Hee, of Samuel Sloan & Co., Rochester, N. Y., respecting credits, questions thereon submitted to the author, together with a brief analysis thereof and replies received from members. A perusal of this valuable contribution elsewhere published in this edition will prove of educational value to our readers.

Ready Relief Funds in the Trade.

The pension plan is becoming more general as the years roll by. Almost every big industry now has arranged a system, more or less perfect, by which old or retired employes, after certain years' services, are cared for. This idea of paying employes after retirement, for whatever reason, at this time does not seem practical, so far as the plumbing and heating trade is concerned. However, the establishment of a home for veteran members of the craft was long ago voiced by the lamented T. A. Hill, former National president of the Master Plumbers' Association. Sooner or later this charitable and high-minded purpose will be culminated and the magnificent craft, which we are all so proud to represent, will be upon a par with others, many of which have National homes for the care and comfort of the down and out member. Societies have been formed for many years in connection with master plumbers' associations, which in a small degree offer prompt and ready relief in the event of death of members. Philadelphia, Pa., has an insurance fund attached to the Master Plumbers' Association. The Knights of Galena, an order of veteran plumbers, steam and gas fitters, many of whom are master plumbers in the city of Brooklyn, N. Y., have an ideal plan, which it might pay other city associations to adopt. For a small monthly payment, without medical examination, they pay to the estate of a member, upon his death, the sum of $200. In time of distress, where money is required without delay to offset unusual expenses, this fund has proven a veritable boon. Since its organization some seven or eight years ago the Knights of Galena have disbursed upwards of $6,000 to the estates of members.

Baltimore's Mayor Expresses Faith and Confidence in Master Plumbers.

Recently at the ball of the Master Plumbers' Association of the State of Maryland, held in the city of Baltimore, the chief executive of the city government, Mayor Preston, stated that there was no combination existing among the master plumbers, as had been charged by some newspapers, nor had there been. The master plumbers of the city of Baltimore were always able to cope with the many sewer connections, the work upon which, considering the shortage of laborers and journeymen, was proceeding with celerity. The Mayor's vindication of the integrity and civic righteousness of the master plumber was timely and deserved, as the members of the association had been ruthlessly attacked by savage thrusts in some newspapers, in which it was alleged that there was a combination existing. The utter futility of the proposition was shown by National Director John Trainor, who stated that it is a physical impossibility to control the actions of six or seven hundred men. Mr. Trainor also pointed out that the elimination of certain provisions in the code, unnecessary in a city constructed as is Baltimore, initiated by the master plumbers, meant a saving to the citizens of some $2,000,000. The expressions of faith and confidence in the master plumbers of the State of Maryland coming from the lips of Mayor Preston should put a stop to newspaper imaginings for some time, let us hope.

Cost Accounting for Plumbers.

A cost system is bookkeeping plus bookkeeping. One without the other is no good. Neither is a cost system any good unless it is based upon the idea of the chargeable hour. Wesley A. Fink, the author of the system, has been a practical plumber, as well as an accountant of repute, for 20 years, and thus is peculiarly equipped to submit information regarding the econcmical and systematic keeping of accounts, which cannot fail to prove of value to the masters and students in our craft. Mr. Fink has been engaged for many years as accountant and installer of accounting systems in large and small plumbing shops, iron and brass foundries, as well as machine shops, manufacturers and jobbers in plumbers' supplies. The series of articles, to be submitted solely to our readers by this expert accountant, are original and deduced from a lengthy study at the prominent financial institutions of the country. We congratulate our readers upon our securing of so notable a writer upon cost accounting for their consideration and education.

Builders to Be Licensed.

There has been presented in the New York State Legislature at Albany a bill which has been drafted under the supervision of Superintendent of Buildings P. J. Carlin, Brooklyn, N. Y., in which it is proposed to license builders. The bill creates a board of master builders' examiners, whose duties will be analagous to those of plumbers' examining boards. They are to be appointed within 90 days after the act becomes a law. The power of appointment is vested in the Mayor. The group will include five men, two of whom will be mason builders, one structural steel builder, one reinforced concrete builder and one carpenter builder. Each must have had 10 years' practical experience. For actual actual services performed they are to receive $10 per day.

The superintendent of buildings or other officer having control of construction and alterations of buildings will be an ex-officio member of the board. The appointees must actually reside in the cities in which they are appointed.

The bill is an amendment to the general city law. A new article is inserted. Provision is made for filling vacancies in the membership of the board, for headquarters, for duties of the board and for obtaining certificates of competency to act as builders.

REGISTRATION OF BUILDERS PROVIDED FOR.

A further provision is made for regis-

tration of all builders who pass the examination. They must register with the superintendent of buildings. Power is given to revoke licenses.

Failure to comply with the law is made a misdemeanor and the license is automatically revoked upon conviction. The powers of the board are outlined in the bill as follows:

"The several boards of master builders' examiners shall have power and it shall be their duty:

"To meet at least once in each month in their respective cities; they shall also meet whenever the Mayor thereof shall, in writing, request them so to do;

"To exercise jurisdiction over and to examine all persons, except qualified architects or architectural engineers, desiring or intending to engage in the trade, business or calling of master builders or employing builders in the city in which such board shall be appointed, with power to examine persons applying for certificates of competency as such employing or master builders, to determine their fitness and qualifications for conducting the business of building construction, or to act as master builders of building construction, or to act as master builders and to issue certificates of competency to such of them as shall have passed a satisfactory examination and shall be determined by the board to be qualified for conducting business as employing or master builders;

"To charge and collect from each person applying for examination by the board the sum of $5, and all moneys so collected shall be paid over monthly to the chamberlain or other fiscal officer of the city in which said board shall have been appointed."

The bill exempts architects and architectural engineers from its provisions.

WILLIAM J. FLYNN, vice-president of the Greater New York Association of Master Plumbers, and who faithfully served the Bronx Master Plumbers' Association for many years as president, was the recipient recently of a beautiful diamond ring, which was presented to him by his associates in the Bronx for meritorious and continuous services. Mr. Flynn is a member of the Bronx Board of Trade and is connected with several other civic societies in his borough. So valuable have been his contributions to the various associations in Greater New York that he has been selected to head several important committees. It is due to Mr. Flynn's splendid efforts that the Bronx Association of Master Plumbers is in such a thriving and successful condition. Mr. Flynn, in paying us one of his regular visits the other afternoon, spoke of the success of the ball and its having been made a regular annual feature of the future.

MR. AND MRS. A. M. MADDOCK have reached San Francisco upon their return from a four months' globe encircling journey, which from all accounts has been a truly delightful one in every particular. A warm welcome will greet the happy pair upon their disembarkation at Trenton, N. J., where they are expected to arrive during the coming fortnight.

NATIONAL DIRECTOR I. J. BROWN dropped in upon us the other day on his way to attend a meeting of the board in the City of Brotherly Love. Mr. Brown is the president-in-perpetuity of the Greater New York Association of Master Plumbers, so Uncle Jonas Rossman states. For as far back as we can remember Mr. Brown has been holding down the presidency of this progressive five-borough association, and his associates are so well pleased with his labors that they insist each year upon his unanimous re-election. No better or more faithful worker exists in the National, State and local associations to-day. His splendid judgment and rare ability peculiarly fit him for the highest offices in the gift of his several associations.

E. M. TATE, secretary of the Pennsylvania Association of Master Plumbers, which office he has filled twice with distinction and secretary of the Pittsburgh local as well, in company of M. Purtill, an active and progressive organization man, journeyed on to New York after attending the opening meeting which was recently held in Philadelphia, Pa. They were guests at a dinner and theater party given in their honor Saturday evening, Feb. 8, by President J. J. Hannegan, of Manhattan; National Secretary Charles Murphy, and a number of friends.

EDWARD F. BEACH, of the Glauber Brass Co., since returning from the annual meeting in Cleveland, has been busy looking over the situation. While his duties of managership preclude his enjoying the regular society of his trade friends, whenever he can shunt affairs of state aside he manages to be "personally present."

FRANK L. BEYER, Buffalo master plumber of note, and former president of the New York State association, visited New York for a few days after the banquet which was tendered Frank B. Lasette by the Albany association. Mr. Beyer had a number of visits to make and paid some personal calls while in the city. In conversation with us he stated that the Wanderlust had again spread its influence over him, and that before long a trip around the world would be undertaken. So many of our good friends have become globe trotters during the past several months that it might properly be said of the trade that "everybody's doing it."

ROLLIN C. WILSON, one of the trade's most popular men and prominent figures in the manufacturing branch, has taken to himself a charming bride, and is now upon a honeymoon, which will encompass the Continent, Great Britain and the Holy Land.

Testimonial Banquet to Be Tendered National President Fee.

A BIG event in the history of the National Association affairs will be the monster dinner to Frank J. Fee, president of the National Association of Master Plumbers, to be tendered him by his many friends in the association on the evening of Feb. 20, 1913, in the large banquet hall of the Hotel Knickerbocker, 42d St. and Broadway, New York city, at 7:30 P. M. Prominent personages in the trade as well as officials in the management of municipal and State affairs will attend. The excellent and valuable services to unselfishly rendered in his devotion to association matters by National President Fee prompted the banquet.

James N. Knight is chairman of the committee, and he promises that nothing will be left undone to add to the success of the occasion. It is confidently stated by Mr. Knight that the event will be one never to be forgotten.

Engrossed Resolutions Presented to Mrs. T. A. Hill.

ON Monday, Jan. 10, I. J. Brown, Jere L. Murphy and J. P. Knight presented Mrs. T. A. Hill an engrossed copy of the resolutions adopted by the Manhattan branch of the Association of Master Plumbers on the death of the late T. A. Hill, as follows:

WHEREAS, In the wisdom of the Supreme Being, there was taken from this earth on Dec. 27, 1912, a most devoted and honored member of our craft, T. Alfred Hill, a devoted husband, an affectionate father, a true friend, a useful citizen and a faithful active member of our association, having served as its secretary and then a president for three consecutive terms, was a State officer and a national president but a few years ago, a soldier and a patriot. To know him was to love him; few were more highly esteemed or had more friends. He was an active member of all organization work up to the time of his demise, nothing was too intricate or arduous for him, and he was ever willing to aid and assist his craft, and always ready to answer any summons given him.

Resolved, That in the death of this worker of good deeds an irreparable loss has been sustained by this association.

Resolved, That in his services of a great many years T. Alfred Hill was distinguished by untiring devotion to duty; was dignified, full of love and charity toward mankind and ever strove to achieve his high ideals of manhood.

Resolved, That the earnest sympathies of the members of the Association of Master Plumbers of New York, Manhattan Branch, are tendered to the family of T. Alfred Hill, with the hope that the fond memory of his achievements may in time assuage the poignant grief now felt by all who knew him.

Maryland Master Plumbers' Association Entertain with Annual Reception and Dance.

MONDAY, Jan. 27, 1913, was the date of the annual reception and dance of the Association of Master Plumbers of the State of Maryland. Lehmann's Hall, on N. Howard St., Baltimore, never held a happier and more contented crowd of good folks than those which gathered to pay homage to this successful and progressive business men's association. By 9 o'clock some 500 persons of both sexes were seen engaging in up-to-date dances, and an hour later the S. R. O. sign might well have been hung out, for it was difficult, indeed, so great was the throng, to pass from one end of the hall to the other. The attendance was well up to the standard of the most successful function of this character ever before presented by the Maryland Association.

Praise for the success of the perfect arrangements is due the following gentlemen, whose efforts for the comfort and pleasure of their many guests were as courteous as successful. August V. Eidman was chairman of the committee of arrangements, his assistants being Messrs. Charles I. Putts, Jr., Pierce J. Flanigan, Wm. H. Mitchell, Bernard H. Berry, Lloyd E. Mitchell, Charles H. Frederick, T. Howard Boland and Adam Snyder.

The reception committee bore the names of the following gentlemen, who properly received and directed the ladies and gentlemen as they arrived, or later on during the festivities, when occasion presented itself. State President Frank J. Knell, Hon. John Trainor, National Director of the Master Plumbers' Association; Samuel E. Houck, D. N. Sullivan, Wm. H. Rothrock, Joseph C. Mitchell, John B. Macfarlane, Allen W. Beam, John A. Graham, John H. Kreh, Wm. F. Mylander, Arthur J. McColgan, R. R. Deetz and George W. Walther.

Farson's Gwynn Oak Orchestra presented some 18 dances, with a liberal list of encores, all of which were under the supervision of the floor committee, which was graced by the following members of the association: August Malthan, John Kirkley, J. A. Burton, F. F. Breyer L. B. Marshall, E. Wehrhahn, Jr.; Patrick Sherry, Wm. J. Peters, George Koerner, L. C. McGuire, James A. Fingles, Charles McKenna, Frank Bennett, T. G. Bunnecke and M. A. Schanze.

The following distinguished gentlemen were invited to attend, many of whom took advantage of the occasion and enjoyed themselves immensely: National President Frank J. Fee, National Vice-President Chris Irving, National Secretary Charles Murphy, National Treasurer Wm. McCoach, National Directors Hon. A. C. Eynon, Hon. John Trainor, Jeremiah Sheehan, W. H. Halsey, Robert E. Quinn, I. J. Brown, Carl J. Stein, S. Louis Barnes, Richard J. Welch, Thomas Haverty and Fred H. Gawthrop.

Washington, D. C., was represented by former National President Walter D. Nolan and wife, John Nolan, former National Secretary Sam Artz, and Chief Plumbing Inspector Arthur R. McGonegal.

Representatives of the Baltimore *Sun*, *American* and *News* attended in their official capacities. Frank K. Chew, *Metal Worker*, and W. G. McCormick, MERCHANT PLUMBER AND FITTER, were guests from the trade press.

JOHN TRAINOR, BALTIMORE, MD.

State officials were represented by Benj. F. Fendall, State Utilities Board; Hon. Phillips Lee Goldsborough, Governor; Dr. Francis Harrington, Health Commissioner, Cumberland, Md., while Baltimore's distinguished guests were Hon. E. Clay Timanus, W. H. Morrow, president Builders' Exchange; I. Herbert Scates, secretary National as well as local Builders' Exchange; Hon. A. P. Gorman, Mayor James H. Preston, Secretary Robert E. Lee, Commissioner Health C. Hampson Jones, Harry M. Laib, Health Department; Comptroller James E. Thrift, Inspector Buildings Clarence E. Stubbs, Chief Engineer Sewerage Department Calvin W. Hendrick, Thomas D. Pitts, division engineer, Sewerage Department; City Engineers Kent H. McCay, H. F. Siemers, J. L. Furgerson and Grafton Duvall.

John Hubert, president second branch City Council; Charles R. Whiteford, president first branch City Council; Dr. N. Gorter, Health Commissioner; State's Attorney W. J. Broening. The Misses Flora Eppler and Alverta Arnold, young ladies who aided the work of the committees ably, were also guests of the evening.

Hon. Allen W. Beam, president State Board of Plumbing Examiners, as well as John S. Kelly, John Mahlon, Robert J. Padgett, Wm. F. Stone and Daniel J. Loden were likewise guests.

Interrupting the ceremonies brief speeches of welcome were made by Chairman August V. Eidman and State President Frank J. Knell, in which felicitations of the local committees and the State Association were offered for the splendid company which the association attracted.

Hon. John Trainor received a warm welcome upon introduction to the thousand persons who were eagerly waiting his eloquent words. During his address he took occasion to mention the decease since our last annual reception of two former presidents of the National Association of Master Plumbers, Capt. Andrew D. Young, who fought with Sherman in the great Rebellion, and the eminent and distinguished gentleman T. A. Hill, who four years ago was present in Lehmann's Hall and was an active participant in the festivities of that evening. Mr. Trainor referred feelingly to the bigness and depth of character of his young friend. Mr. Trainor said that he attended his funeral services in New York City, and at his bier found fellow craftsmen from all over the land, who had gathered to pay their last respects, and from the judgments expressed Mr. Trainor stated that his high estimate of our deceased friend was about right. Closing Mr. Trainor thanked the ladies and gentlemen for their gladsome presence, and jokingly expressed delight at their good conduct.

Former National President Walter D. Nolan was applauded upon introduction. Mr. Nolan regretted that President-elect Wilson could not be present upon this festive occasion because then he would see how wrong he was in precluding thousands from the enjoyment of the inaugural ball. Mr. Nolan mentioned his happiness at being invited to attend these delightful functions, to be present at which had given him real pleasure upon many past occasions, and for a continuance of invitations for which he earnestly hoped in the future.

That distinguished trade savant, Wm. H. Rothrock, former national director, upon whom local and State honors have been showered upon many occasions, was introduced and warmly received. Mr. Rothrock is the pioneer master plumbers' associate in Maryland. He expressed his delight at the happy throng before his eyes, paid his respects to the appearance of the lovable ladies, and trusted that the enjoyment yet to be found in the balance of the evening would cause the attenders to long remember the plumbers' ball.

Former State President John B. Macfarlane, Cumberland, who was present with his son and daughter, facetiously remarked that it was an imposition upon the guests and their ladies to inflict his oratory upon them. That he was not present with the thought or hope of making a speech, and

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would leave eloquence to the lips of those more suitably constructed.

The national secretary of the Builders' Exchange, likewise secretary of the local, I. H. Scates, was introduced to his many friends, and expressed pleasure at once again attending so delightful a function. Mr. Scates paid his compliments to the association, and to his distinguished friend, John Trainor. Mr. Scates seriously pointed to the high office of the building business in its commercial importance to the community, and stated that it was second only to the master plumbers' contribution to the wealth and happiness of nations. He stated his high appreciation of the good work of the association, and spoke of its able efforts to produce a better understanding of the building code, and a disposition to assist the municipal authorities of the city and officials of the State to effect better living conditions, all of which make for better citizenship.

C. Hampson Jones, health commissioner, devoted a considerable portion of his address to the necessity for preventive measures in the present smallpox scare. We have the matter well in hand, said he, but every precaution must be taken to discover the origin of each and every case, so that we may not be taken unawares. The experience of the present invasion of the disease has shown that it only has attacked the colored people.

State Attorney Broening spoke of the high standard of the association, and its civic helpfulness toward better things. He said he was acquainted with the work of the association, and his regard was established through a study of its high-grade business-like methods and conservative actions.

The Mayor of Arlington, P. J. Flanigan, was introduced, and spoke of his experience of many years with the Master Plumbers' Association of the City of Baltimore, and the associates throughout the State. While he was not one of them, he knew them to be reputable and substantial business men, law-abiding citizens in the highest sense, and men upon whom every confidence may be put without fear or worry. He addressed himself to the Mayor respecting the turmoil which was recently created in plumbing circles throughout the city of Baltimore in connection with sewerage connections, where the accusation had been made that the master plumbers were in combination. Mr. Flanigan stated that the master plumbers were in numbers sufficient to effect all the connections promptly and economically, provided they had journeymen and laborers sufficiently numerous to proceed with the work. That is was only the shortage of mechanics and laborers that caused the connections seemingly to lag. If the mayor will see to it that the class of labor referred to is imported the master plumbers will cover themselves with glory. Mr. Flanigan took occasion to remark that the talented members of the craft, the employing master plumbers, could well attend to the plumbing in the five great cities of the nation at this or any other time in the very near future.

Mr. Trainor pointed out to Mayor Preston the impracticability of a combination with the master plumbers and jobbing houses, where there were six or seven hundred units in interest. Mr. McPhail, the pioneer plumbing supply man in the Monumental City, in splendid position to know the facts, also lent his experience and judgment upon this all-important topic. He said there is no combination between the master plumber and the jobbing houses, there has never been one, nor will there be. Mr. McPhail paid a well-deserved compliment to the integrity of the master plumbers of the Maryland association, and spoke of the many years' dealings which he has had with them during his experience in the jobbing of plumbing and steam supplies. Mr. McPhail referred to the motto of the national association, which was adopted in the Eutaw House some 30 years ago at the second meeting of the association at which he was present: "They builded better than they knew." Mr. McPhail decried the thought of regulation of prices, and stated that this could not be done.

Mayor Preston stated that he was sure there had been no combination, or attempt to regulate prices, and he stated that the only difficulty was in the lack of journeymen and laborers, which he hoped the craft might soon be supplied with, so that the work of connecting the sewers might proceed without delay. He expressed his satisfaction at the great number of connections already made. The mayor took occasion to remark the gigantic municipal sewerage system which the city of Baltimore has just about completed, and rendered for the education of those present an interesting recital of the facts and statistics in connection therewith, which were illuminating and interesting.

The festivities were not concluded until long after midnight. Everybody seemed to have the time of his or her life. All interests were splendidly represented. Manufacturing, jobbing and specialty houses were present in large numbers. James Robertson Mfg. Co., Crane Co., John B. Adt Co., Cuyler & Mohler, Central Metal & Supply Co., Crook-Horner Co., Crouse & Roberts, Southern Supply Co., United States Radiator Corporation, Pierce, Butler & Pierce, Lyon, Conklin & Co., Inc., and others were represented.

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FRANK KIMBLE, Manager

Philadelphia Association Celebrates Ladies' Night at the "Walton."

ASSUREDLY the most successful annual entertainment, banquet and dance of the Master Plumbers' Association of Phi'adelphia were splendidly celebrated upon Monday evening, Jan. 27, at the Hotel Walton.

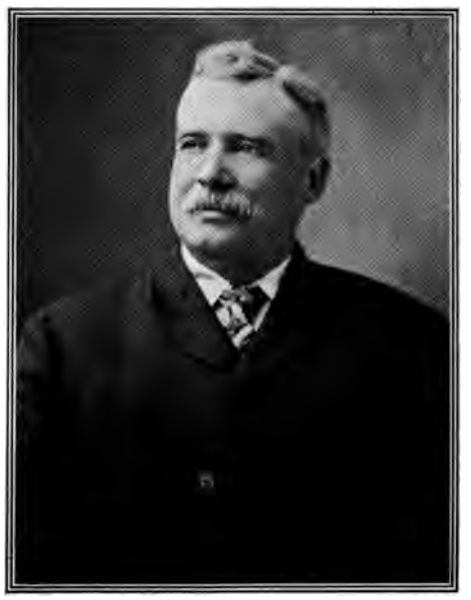
Some 400 members, their families and guests of the occasion gathered early so as to secure good seats from which to watch and listen to the excellent concert which had been arranged for their pleasure. The excellence of the program speaks for itself. We present it herewith:

Osgood-Rous Trio.
Maybelle Arnold-Osgood, Violinist.
Marie Hall Brehm, 'Cellist.
Emma Rous, Harpist.
Jerre Shaw, Tenor.

Trio—"Humoresque" .....Dvorak
Tenor Solo.....Selected
'Cello—"Capricio" .....Golterman
Trio—"My Heart at Thy Sweet Voice."
Saint Saens
(From "Samson and Delilah.")
Harp—"Lucia Sextette" .....Cheshire
Tenor Solo.....Selected
Violin—(*a*) "Folk Song".....Bruno Oscar Klein
(*b*) "Canzonetta" .....d'Ambrosio
Trio—"Cavatina" .....Raff

While the musical portion of the evening was properly being enjoyed the banquet was indulged in. An unexcelled menu held the close attention of the diners for several hours. The offering of the Walton's chef is repeated herewith:

Cotuit Oysters.
Celery. Olives.
Mock Turtle au Quenelles.
Blue Fish au Gratin Italienne.
Potatoes Duchesse.



WILLIAM M'COACH, PHILADELPHIA, PA.
Treasurer National Assn. of Master Plumbers.

Cream de Menthe Punch.
Roast Squab Chicken Stuffed.
Potatoes Risole.
String Beans.
Lettuce Salad. French Dressing.
Ice Cream in Fancy Forms.
Assorted Cakes.
Coffee.

President Edward F. Roberts was toastmaster of the occasion, and, as usual, he acquitted himself of the various tasks of this gracious office with distinction. Mr. Roberts was accompanied by his charming wife. Other personages of prominence seated at the toastmaster's table were the following ladies and gentlemen: National Treasurer Wm. McCoach and wife, Mr. and Mrs. Samuel W. Barnes, Chris. J. Doyle, S. Louis Barnes, national director; President C. K. Will of the Pennsylvania association, and State Secretary G. F. Reichman.

Letters of regret were read from National President F. J. Fee, National Vice-President Chris. Irving, National Director John Trainor, Baltimore, and former National President Walter D. Nolan, Washington, D. C.

National Treasurer Wm. McCoach, always a lion at Pennsylvania State, local and national conventions, was naturally the first orator of the evening called upon by Toastmaster Roberts. Mr. McCoach seriously called attention to the passing of the time, the faces now sadly missed, and those of us now here who will some day be claimed by the grim reaper. His feeling reference to the frailty of human life and the necessity for our future happiness to do as well as we can while here for the benefit of humanity was appreciated by his interested listeners. National president of other years, Wm. H. Doyle, who was absent because of a serious illness, was referred to by the national treasurer and a good word said for his works in behalf of the association.

National Director S. Louis Barnes, the handsomest man in the State organization, was introduced, and forthwith disclaimed any credit for the success of the function, placing it all upon the shoulders of our esteemed but modest friend, Harry B. Lentz. The activity of the ladies whose husbands are members of the association was bespoken by Mr. Barnes in connection with the coming national convention to be celebrated in Philadelphia next June. Mr. Barnes announced that the chairman (or woman) of the ladies' auxiliary committee was the confirmed convention attender, Mrs. Harry L. Righter.

State President Charles K. Will, Lancaster, Pa., was introduced and descanted happily upon organization affairs and the great help the ladies might give to the work of the association by insisting that a fair and reasonable profit be secured upon each piece of work performed. Mr. Will stated that this was his first opportunity to address the ladies of the association, a fact from which he would take great pride in the present and future.

Mrs. Harry L. Righter challenged the toastmaster as to her speechmaking ability, and this charming association lady, who is nothing if not an enthusiast upon association affairs, delivered a whole-hearted and sympathetic entreaty to her fellow mesdames to metaphorically put their shoulders to the wheel and without delay organize for the success of the coming national meeting.

At the suggestion of Harry Lentz the

S. LOUIS BARNES, PHILADELPHIA, PA.
Director of the National Association.

C. K. WILL, LANCASTER, PA.
President Pennsylvania State Association.

SAND HOLES? NEVER!!

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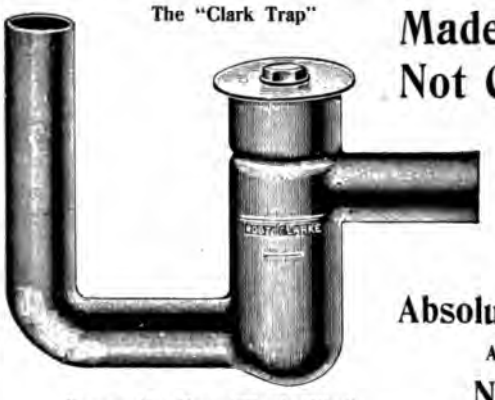

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flowers and floral decorations were to be sent to the homes of the members detained by illness, of which, unfortunately, he said there was quite a number.

A special vote of thanks was given Mr. and Mrs. Lentz for their invaluable services upon this and other occasions. Harry unquestionably is a great worker.

The committee of arrangements embraced the names of Chairman Harry B. Lentz, Edward F. Roberts, S. Louis Barnes, Harry K. Bissing, Gregor Drummond, Robert H. Pflugfelder and George Moeller.

Pennsylvania State Vice-President D. F. Durkin, Jr., was chairman of the floor committee. His assistants follow: Robert J. McNally, William R. Boal, Robert G. Weir, Thomas J. Barry, Chris. J. Doyle, John V. McNally, Frank Horowitz, Evan T. Pennock, Robert J. Long, Edward Elker, M. Lehman, J. J. Kennedy, Thomas B. Sutch, J. Gilbert Lowener, Francis T. Witham, Dennis V. Kennedy, George W. Reagan, Frank Kramer, Irwin English, W. T. Finley, M. J. Morgan, Eugene Quinden, Thomas H. Rhodes, Robert Bulman, George R. Burlingame, M. J. Donegan, Frank J. Dowling, George Engle, John E. Eyanson, H. E. Hendrickson, James M. Jerman, Frank Joy, M. A. Lehman, Herman W. Meier, Walter H. Nash, Francis H. Naylor, Jr., N. Walter Rhodes, E. P. Rickly, Harry J. Schisselbauer, Robert Steele, Charles B. Tolly, Charles F. Tracy and H. B. Wall.

Hon. Wm. McCoach was chairman of the reception committee. George F. Uber was vice-chairman. Their courteous and efficient assistants were Wm. M. Anderson, Samuel W. Barnes, J. C. Bartlett, Wm. Boal, Harry Boon, A. G. Bond, John Borden, Frank P. Brown, Jacob Bugger, Andrew Carson, Thos. B. Dale, Wm. H. Doyle, Thos. English, James S. Ferguson, Chas. D. Fricka, Mason K. Fry, A. Lincoln Gillespie, John Gormly, P. Gormly, Geo. B. Grey, C. Wm. Groeling, John C. Ganzer, J. F. Hallinan, M. L. Hamilton, Albert M. Hicks, Robt. J. Hoben, H. L. Hurlburt, Walter Jones, Oscar A. Kahler, Jos. T. Kinsley, Godfrey Krouse, Walter E. Lamond, John P. Leigo, Robert Leinau, Graham W. Long, John Long, R. G. Loughery, John McCann, Robert A. McCleary, Hugh McElwee, Harry C. Mellon, James P. Moloney, Wm. Newell, Wm. P. Ogelsby, Alfred S. Powell, John A. Quinn, T. T. Rockett, Walter R. Ross, Wm. M. Sample, Jos. Scholl, Chas. M. Sheldrake, Howard Smith, Nathan E. Smith, Louis J. Sommer, Fredk. P. Speth, Jos. Stewart, Barclay I. Thorn, Wm. N. Topham, Frank D. Toy, Chas. S. Warfield, Richard H. Watson, Wm. White, Chas. Wilkinson, Geo. B. Wills, Geo. W. Wismer, Wm. M. Wright, Jacob Zimmerman, Wm. H. Ambrose, Wm. R. Busby, J. P. Cleary, Lemuel J. Craig, John J. Daly, George W. England, Wm. V. Kettlewell, Howard Neilson, Wm. Parks, Jr., James V. Powers and James V. Spencer.

The spirit of fellowship that pervades Philadelphia's mixed functions of this character was splendidly exemplified by the 400 persons present, who joined in the many choruses of popular songs rendered for their special delectation. "Row, Row, Row" made a distinct hit. It was encored tremendously. The voices of the ladies rose to the occasion, their alto and soprano notes of quality being well heard above the tenor and basso-profundi of the male members of the singing class. "My Hero" went well, as did "Everybody's Doing It Now." Perhaps the more popular piece of the evening, a special dedication to the many handsome ladies present, was "Oh, You Beautiful Doll."

The committee of arrangements had provided a beautiful sterling-silver berry spoon for each of the ladies, who delightfully expressed their appreciation of the useful souvenir.

Among the ladies present were Mrs. T. D. Toy, Miss Katherine Giliora, Miss Mable Jester, Mrs. Byer, Mrs. Buggar, Miss Dailey, Mrs. Allinson, Mrs. Dale, Mrs. Newton, Mrs. Righter, Mrs. E. Righter, Mrs. W. J. Hunsperger, Mrs. S. Cave, Mrs. Boulis, Mrs. Fitzgerald, Mrs. T. Michelbach, Mrs. Joe Kearney, Mrs. B. T. Stoehman, Mrs. John H. Lang, Mrs. T. Joy,

G. T. REICHMAN, LANCASTER, PA.
Secretary Pennsylvania State Association.

Mrs. W. Magee, Mrs. Hamilton, Mrs. Tanett, Mrs. W. V. Kettlewell, Mrs. N. W. C. Uber, Mrs. E. T. Peacock, Mrs. G. N. Arnold, Miss H. Arnold, Mrs. Speth, Mrs. Sirberlish, Miss Gray, Mrs. Wm. Fox, Mrs. T. S. Mathews, Mrs. McGuinnis, Miss McGuinnis, Mrs. A. W. Baxter, Mrs. C. D. Baxter, Mrs. E. M. Baxter, Mrs. Suttle, Miss N. Suttle, Miss Eddis, Mrs. Mable Nazel, Miss M. B. Gallen, Miss McElwee, Miss Tafferty, Miss M. Weiss, Mrs. Wm. Beatty, Mrs. W. W. Myers, Mrs. Whealin, Mrs. Toy, Miss Toy, Mrs. Caldwell, Miss Caldwell, Mrs. S. M. Wilson, Mrs. Geo. S. Holmer, Mrs. Otter Einholf, Mrs. Frank Kramer, Mrs. J. Coward, Mrs. O. Witham, Mrs. Usher, Mrs. Weiclerman, Mrs. Quinlen, Mrs. Busby, Mrs. Freed, Mrs. Busby, Jr., Mrs. Jaim, Mrs. Margaret Slack, Mrs. Hurlbut, Miss Hurlbut, Mrs. Tong, Mrs. Segne, Miss H. McElwee, Mrs. Burlingham, Miss H. M. Bond, Mrs. A. G. Bond, Mrs. H. E. Hendrickson, Mrs. Wm. P. Thompson, Mrs. Campbell, Mrs. Howland, Mrs. I. Murphy, Mrs. T. S. Mathews, Miss A. Gosh, Miss M. Gosh, Miss H. Smith, Miss E. Mathews, Mrs. Pfhiafelder, Mrs. J. Palsky, Mrs. Tehman, Mrs. Catseff, Mrs. Jones, Mrs. L. J. Sommers, Mrs. L. J. Sommers, Jr., Mrs. G. B. McKenty, Mrs. Wm. Boal, Mrs. G. W. Roddy, Mrs. J. P. Fitzgerald, Miss S. Bross, Mrs. W. S. Reel, Mrs. J. F. McCradden, Mrs. J. McGuinnes, Miss M. McGuinnes, Mrs. G. W. Tong, Mrs. A. Steel, Mrs. J. Stewart, Miss F. Stewart, Mrs. F. Stewart, Miss Wonderly, Miss Jester, Mrs. J. V. Powers, Mrs. J. V. Spencer, Mrs. W. J. Hunsberger, Mrs. F. Joy, Mrs. H. B. Fritz, Mrs. W. H. Miller, Mrs. Geo. Moeller, Miss Ruckhardt, Mrs. Neilson, Mrs. N. Peterson, Miss Barnes, Mrs. Wm. McCoach, Mrs. T. Barnes, Mrs. S. Barnes, Miss M. Uber Nazel, Mrs. Borden, Mrs. W. Meegan, Mrs. J. B. Coward, Mrs. E. B. Roberts, Mrs. W. E. Famond, Mrs. A. Paul, Mrs. R. Bulman, Mrs. E. H. Sturts, Mrs. Geo. C. Hirst and Mrs. W. C. Hirst.

An interesting point in the evening's proceedings was some attractive steps of dancing done by Mrs. Mabel Uber-Nazel, the charming daughter of former National Director George F. Uber, and one of the most popular young ladies who ever attended a national convention, and that student of terpsichore, Harry B. Lentz. Several encores were called for, and not until Harry and his charming partner were thoroughly exhausted were they permitted to depart from the floor by their enthusiastic audience.

Manufacturing, jobbing and specialty interests were splendidly represented, as of yore, and the courteous supply gentlemen lent their services in making the event one long to be remembered.

The MERCHANT PLUMBER AND FITTER was represented by Mr. J. H. Parker.

Successful Open Meeting of Philadelphia Master Plumbers.

THE regular meeting of the Philadelphia (Pa.) Master Plumbers Association was held Thursday evening, Feb. 6, 1913, at the rooms of the association in the Builders Exchange. There were upwards of 150 in attendance. Besides the routine affairs of the association, which was conducted in the open, there was what is called an "open meeting," one in which many master plumbers, not affiliated with the organization, were present as interested spectators to the workings of the organization. This occasion was a special one for the reason that there was in attendance the national secretary, Charles Murphy, and the president of the Greater New York Association, I. J. Brown, as well as a national director.

From the city of Pittsburgh, Pa., there were present State Secretary E. M. Tate, as well as M. Purtill, an active and progressive organization man. National Treasurer Wm. McCoach, and former National Director George Francis Uber, in addition to National Director S. Louis Barnes, with the father of the latter, Samuel W. Barnes, lent distinction to the occasion.

President Edward F. Roberts, in his usual graceful style conducted the ceremonies. When the meeting had been properly consummated, rather when the organization affairs had been dispensed with, National President Fee was introduced to a riotous reception. Mr. Fee discoursed delightfully and interestingly upon the real achievements of the national association, and convincingly pointed out a number of good and substantial reasons why it is that no master plumber should be without the breastworks. The master plumbers in the organization by concerted effort and continued labors of a distinctly successful character have made it possible for all members of the craft to make a decent livelihood for themselves and their families. In addition to an interesting talk about organization work, Mr. Fee, the successful procurer of the present law separating plumbing and heating from the general contract in New York State, enlightened the audience as to the workings and operations of this law which has been effective since last September. Mr. Fee's address was immensely appreciated by all those present, and when finishing his speech he was cheered to the echo.

National Secretary Charles Murphy, also president of the New York Plumbing Exchange, Inc., was welcomed warmly by his many friends. He talked of the advantages accruing to the trade from the operation of the Plumbing Exchange in New York, and stated that its accomplishments up to date exceeded the most sanguine expectations. The exchange has been effective since the first of August last, and the situation so far as master plumbers and jobbers are concerned in and about New York has been greatly cleared. The results of so short a period of activity

FRANK J. FEE, NEW YORK.
President National Assocation of Master Plumbers

point to others even greater, and according to Mr. Murphy the spreading of the idea to all corners of the country will add greatly to the successful conduct of the business of both jobbers and master plumbers. More especially is the exchange one productive of mutual protection, and only by such a means is it possible to place the business upon a high level befitting both branches of the trade.

Some 25 applications for membership were received by the secretary. Inasmuch as the applicants are men of commercial prominence and repute the meeting in every sense may be considered a successful one.

National Director I. J. Brown lent his experience to the occasion, and for 20 minutes addressed the meeting upon subjects of interest and importance.

National Treasurer William McCoach, National Director S. Louis Barnes and former National Director George F. Uber, as well as local president Edward F. Roberts interested the audience with cogent facts and reasons why an affiliation with the greatest trade organization of its character in the world was seemly and desirable.

Here's a Good One.

THE local plumbers' union of Wichita, Kans., has demanded that its members' wages be reduced from $4 to $2 a day. This move is taken to force the non-union plumbers into the union. They expect that the wages of the non-union men will also be reduced, and that rather than work for $2 a day they will join the union. The employers say they can do nothing but accept the change.

Practical Books for Our Trade

BUILDING MECHANICS' READY REFERENCE. (Plumbers, Steam Fitters and Tinners' edition.) By H. G. Rickey	1.50
CONTRACT AND ESTIMATE RECORD BOOK FOR PLUMBERS. Pocket Edition. By Gray	.50
DOMESTIC, ELECTRIC (in paper), by W. R. Wittbecker	.25
EXTERNAL PLUMBING WORK, by John W. Hart	3.00
HEATING AND VENTILATING BUILDINGS, by Carpenter	4.00
HEATING AND VENTILATION. Tables and Formulas. By F. Schumann	1.50
HISTORY OF SANITATION, by J. J. Cosgrove	1.50
HOT WATER SUPPLY, by F. Dye	1.00
JOHNSON'S HANDY MANUAL	1.00
LEAD BURNING BY THE AUTOGENIOUS PROCESS	1.00
LIGHTING BY ACETYLENE GAS, ELECTRIC FURNACE, GENERATORS AND BURNERS, by W. E. Gibbs, M.E.	1.50
MECHANIC'S COMPANION, by J. M. Scribner	1.50
MODERN PLUMBING, by R. M Starbuck. Charts and descriptions	4.00
NOTES ON HEATING AND VENTILATION, by John R. Allen	2.00
PLUMBING AND HOUSE DRAINAGE PROBLEMS	3.00
PLUMBING CATECHISM, by C. M. Ball and H. T. Sherriff.	1.00
PLUMBER'S TEXT-BOOK, 300 questions and answers, by Frank Tower	1.00
PRACTICAL HEATING CHARTS, by A. G. King	5.00
PRACTICAL HINTS ON JOINT WIPING, for beginners in plumbing	.25
PRACTICAL STEAM AND HOT WATER HEATING AND VENTILATION, by A. G. King	3.00
PRACTICAL WRINKLES FOR THE PLUMBER, by R. M. Starbuck.	$1.00
PRACTICAL GAS FITTING	1.00
PRINCIPLES AND PRACTICE OF PLUMBING, by J. J. Cosgrove	3.00
QUESTIONS AND ANSWERS ON THE PRACTICE AND THEORY OF STEAM AND HOT WATER HEATING, by R. M. Starbuck	1.00
QUESTIONS AND ANSWERS ON THE PRACTICE AND THEORY OF SANITARY PLUMBING, by R. M. Starbuck	1.00
QUESTIONS AND ANSWERS ON THE PRACTICE AND THEORY OF SANITARY PLUMBING, HOT WATER SUPPLY AND CIRCULATION. Vol. II	1.00
REPAIR KINKS, by Martin L. Kaiser	.50
SANITARY HOUSE DRAINAGE; ITS PRINCIPLES AND PRACTICES, by T. E. Coleman	2.40
SANITATION, WATER SUPPLY AND SEWAGE DISPOSAL OF COUNTRY HOUSES, by Wm. Paul Gerhard	2.00
SEWAGE PURIFICATION AND DISPOSAL, by J. J. Cosgrove	3.00
SEWERS AND DRAINS, by A. Marston	1.00
STANDARD PRACTICAL PLUMBING, by R. M. Starbuck	3.00
STEAM AND HOT WATER FITTERS' TEXT-BOOK, by Thomas E. McNeill	1.00
THE ART OF LEAD BURNING, by C. H. Fay	2.00
THE GAS FITTERS' QUESTION BOOK, WITH ANSWERS, by Albert Dunbar	1.25
THE WATER SUPPLY SEWERAGE AND PLUMBING OF MODERN CITY BUILDINGS, by Wm. Paul Gerhard	4.00
WROUGHT PIPE DRAINAGE SYSTEM, by J. J. Cosgrove	2.00

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The Thirty-first Annual Convention of the National Association of Master Plumbers.

THE Bellevue-Stratford, Philadelphia, Pa., acknowledged by many qualified to judge as the finest hotel in America, has been selected and engaged as the headquarters for the coming thirty-first annual convention of the Master Plumbers' Association of the United States to be celebrated during the week of June 16-21, 1913.

The sessions of the convention will be held in the grand ballroom, the furnishings and construction of which cost one million dollars. Close at hand, the exhibition chamber will be located in the clover and red rooms. This is the present contemplation. The chairman of the Exhibits Committee, Harry B. Lentz, may be addressed at 634 W. Girard Ave., Philadelphia. George F. Uber, Thirteenth and Fairmount Aves.; S. Louis Barnes, 2104 N. 6th St., and Edward F. Roberts, 2622 W. Columbia Ave., Philadelphia, Pa., will gladly furnish information regarding exhibits, and all other phases of convention business.

Mrs. Harry L. Righter has been elected as chairman of the Ladies' Auxiliary Committee, and any communications addressed to her at 5424 Germantown Ave., Philadelphia, Pa., will receive due consideration.

The prophets are already claiming that the 1913 Philadelphia annual meeting of the Master Plumbers' Association will be the greatest and most successful in its history.

Bronx Master Plumbers' Association Score a Winner.

FOR the first time in six or seven years the Association of Master Plumbers, City of New York, Bronx Branch, held forth with a reception, dinner and dance at the McKinley Square Casino, upon Friday evening, Jan. 31, 1913.

The weather was fine until about nine o'clock, when a torrent or deluge set in as an admonition to those tardy ones who always reach a function of a social nature about an hour after the scheduled time. The committee, so we are informed by Joseph Theiss, arranged with the weather forecaster to this effect and, while it was rather a damp and mean experience for the late arrivals, we are sure that upon such future occasions the folks will so arrange their affairs to be more prompt. Be that as it may, as our old friend George Munroe would say, there were upward of 1,200 persons in attendance. There were more than 200 couples in the march (there would have been more but the hall would not permit), and some 300 persons at three o'clock in the morning sat down to dinner. Some idea of the success of the most recent Bronx affair might be gleaned from the above mentioned facts.

Flynn's Orchestra, directed by Frank J. Flynn, offered some two or three dozen dances, although the program called only for 20, and the rarest of good times was enjoyed by all. A special hand polish had been put upon every board in the spacious dancing floor, and slippery elm was real rough stuff when compared with this highly glazed surface. As a matter of fact, you had to keep moving when once you started, or be threatened with a fall and a slide upon the glacierlike dancing platform. One or two hit the bumps, adding much to the merriment of the occasion, not for themselves naturally, but you just couldn't refrain from laughter when a neat little couple of about 400 avoirdupois in tripping the light fantastic caught one foot in another and "biff!"

Class abounds in the Bronx Association. This beyond question. Witness—Joseph Theiss, president; Frank Habeck, vice-president; S. H. Welch, treasurer; T. J. F. Moffett, financial secretary; David Durie, corresponding secretary; J. J. Foley, sergeant-at-arms, and J. V. McEvily, marshal. By the way, we were real sorry to learn of Mr. McEvily's illness, and trust by this time he has recovered his usual robust health. The trustees embrace our good friend Peter Schweikert, chairman; W. J. Flynn, George Jung, Frederick Weber and W. Wilcox.

W. J. FLYNN, FLOOR DIRECTOR AT THE BRONX BALL.

These officers had selected as their committee of arrangements the following gentlemen: Chairman, J. J. Foley; W. J. Flynn, W. Wilcox; V. Bernesser, S. H. Welch, O. Johnson and T. F. J. Moffett.

The reception committee had as its chairman J. J. Foley, who was ably assisted by Lieutenants Joseph Thiess, W. J. Flynn, S. H. Welch and Frank Habeck.

In true military magnificence we observed William J. Flynn, properly badged as floor director. His assistant was V. Bernesser. The floor committee contained the names of the following gentlemen, each and every one of whom keenly scented occasions for courteous services to their army of guests, and their efforts to please made it possible for the thousand-and-odd persons in attendance to have the times of their respective careers.

The floor committee follows:

John V. McEvily, Alfred Beyrodt, Matthew Kennedy, James F. Bouser, Otto Ozab, Edward L. Eich, George Knauss, Jacob Muller, Henry Salzman, Daniel Cash, D. L. Delaney, P. Mead, Jos. Rowan, Philip Carber, Nicholas Bellion, Henry Farrell, Benj. Goldstein, Jas. Hogan, Hugh Kelly, Wm. Kroepke, Louis Macousey, Samuel Minskoff, Anthony Polzella, F. J. Reihm, John Rendall, Henry Rudolph, Herman Schmidt, Martin Malarky, C. J. Gleason, J. A. Smith, George Smith, D. Rogrove, B. J. Deedy, H. Newhoff, M. J. Crowley, J. Richman, A. Schneider, D. Bradspis, G. R. Koeble, E. Ducklaur, F. A. Buser, Geo. P. Engeldrum, F. J. Hecht, Martin Klett, R. J. Keesing, J. P. Mitchell, Frank Ritz, Jos. Rice, F. Steiger, F. Wohn, S. Arnome, B. F. Coughlann, Jas. Kelly.

Distinguished National, State and Local association officials were present in number. National President Frank J. Fee, National Secretary Charles Murphy, New York State President Frank B. Lasette, New York State Secretary and President of the Manhattan Local John J. Hannegan, all accompanied by their handsome wives, were observed in the boxes overlooking the dances. Mr. and Mrs. Jack Hopkin and Col. Alex. Brown accompanied the Manhattan party.

The contingent from the Brooklyn local embraced the following gentlemen: Matthew J. Kennedy, vice-president; Thomas E. O'Brien, Edward J. Belford, J. J. Dixon and several others, all of whom enjoyed themselves immensely.

Building Superintendent Henderson, with his staff of assistants, were present throughout the festivities, and added much to the joyousness of the occasion. A full corps of plumbing inspectors from the Bronx attended as follows: Chief Inspector Jos. F. Donohue, Inspectors B. J. Healy, John P. Mullen, A. F. O'Toole, D. F. Henry, W. P. Hutchins, E. Wiess, J. J. Delaney, H. J. Steele, J. F. Lalor and J. F. Kaiser.

The trade interests were largely represented. We observed "Jim" King, National Lead Co.; George E. Heim, United Lead Co.; "Billy" Dobbs, The Peck Brothers & Co.; E. N. Cokefair, Magee Furnace Co.; John Kelley, manager Bronx department Colwell Lead Co.; George Larson, Freany & Co.; Charles Frean, secretary New York Plumbing Exchange, Inc.; William Crotty and William M. Hender-

son, Central Foundry Co.; John Maire, Pierce, Butler & Pierce Mfg. Co.; William Lockwood, Pittsburgh Meter Co.; Charles Weber, Philip Krauskopf, George Kumpf, A. Altman, Stephen Bassford, Henry Belmer and Henry Winkler, Dimock & Fink Co.; William Herzberg and Thomas Daly, Standard Plumbing Supply Co.; Mr. Wheeler, American Radiator Co.; Asa and Harold Crookston, W. H. Crookston & Bro.; E. Florscheim, United Plumbing Supply Co.; George and "Al" Sealy, George E. Sealy Co.; Richard Donovan, McLoughlin & Donovan; Messrs. Henry Gleichman and A. E. Cosgrave, Central Brass Mfg. Co.; Joseph Hlawatsch, Edw. F. Keating Co.; E. A. Twiss, Haydenville Co., and L. Rosenthal, Rosedale Brass Co.

At the dinner which succeeded the first half of the program of dancing President Joseph Theiss, who acted as toastmaster, extended a cordial welcome to the guests of the evening, to all of whom he extended an invitation to be present next year.

In turn Mr. Theiss introduced New York State President Frank B. Lasette, who addressed the diners briefly, mentioning the harmony which prevailed between the Bronx Association and its sister branches throughout the greater city, as well as the other locals all over the State. Mr. Lasette felicitated the Bronx Association upon its ability to attract so many handsome ladies and representative business men, and said the members of the Bronx organization might well be proud of so notable an achievement. To get upward of 1,000 ladies and gentlemen to venture out upon a night of inclement weather was a real accomplishment.

Building Superintendent Henderson spoke of the pleasant associations which existed between his office and the Master Plumbers' Association, as well as its members, and he also took occasion to remark that the Master Plumbers' Associations presented the best grade of business men with whom he is in contact, and their reasonableness at all times and disposition to assist his office in properly carrying out the laws of the State and the rules and regulations of his department were a commendable feature of their profession.

National Secretary Charles Murphy expressed his delight at being present at this festive occasion. Mr. Murphy spoke of the high regard and esteem in which the members of the Bronx organization are held by their associates throughout the country. When support is sought from the Bronx upon organization work it is never found wanting. In the Bronx society were many personal friends of his, and whenever an invitation is extended to him he would make it his business to be present and greet his many friends.

Hon. Matthew J. Kennedy, vice-president of the Brooklyn Association and Assistant Building Superintendent of the Borough of Brooklyn, a painstaking and successful incumbent of this important office during the past four years, addressed the gathering. Mr. Kennedy is a pioneer in the battle against those practising the profession of plumbing illegally, and he devoted considerable time to a discussion of the methods which he has so successfully operated in the past against these trade buccaneers. Mr. Kennedy stands so well with the Building Superintendents of the various boroughs that for some time past he has been honored by their selecting his office as the regular place for the holding of meetings. Matthew, certainly some distinction. Recourse after the banquet was had to the dancing floor, where uninterruptedly until 6 o'clock the following morn Terpsichor held sway.

The many courtesies of the officers and members of the Bronx Association so cordially extended members of our staff are greatly appreciated. The MERCHANT PLUMBER AND FITTER was represented by Mr. and Mrs. John H. Parker, Mr. and Mrs. Wm. J. Marshall, Mr. and Mrs. Wm. G. McCormick.

An unusual happening in connection with the Bronx ball was the trolley cars, which for the comfort and convenience of the thousand and odd guests ran upon a fifteen minute headway. This consideration was the courtesy of Edward A. Maher, vice-president and general manager, Third Avenue and Union Railways. Mr. Maher is an intimate friend of Wm. J. Flynn, and upon request he cheerfully extended this unusual courtesy. His favor was immensely appreciated by all.

New Construction Company Files Incorporation Papers.

ARTICLES of incorporation of a new corporation were filed with the county clerk Jan. 20 at White Plains, N. Y. The new company is the Bergen Lindeman, Inc., of Yonkers, capital stock, $50,000. The company will do a general construction business, and will have an office at 561 Van Cortlandt Park Ave., Yonkers. The directors are Charles W. and Katherine Bergen and Theodore and Margaret Lindeman, all of Yonkers.

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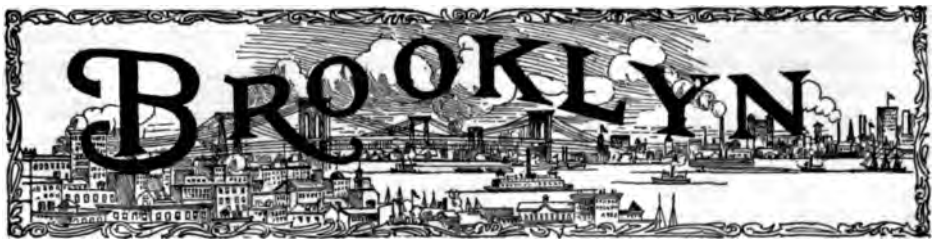

JAMES G. SUTPHIN & SON, of 646 Manhattan Ave., Brooklyn, are busy jobbing and overhauling, they also have the contract for the new four-story factory being erected for the Royal Lace Paper Works on Lorimer St.

The H. F. Meistrell Heating Co., of Brooklyn, N. Y., has been incorporated with a capital of $10,000. The incorporators are: Henry F. Meistrell, Joseph N. Meistrell, Sarah G. Meistrell, 181 Bay 28th St., Brooklyn.

Former President James J. Doody, Knights of Galena, Dies Suddenly.

JAMES J. DOODY, plumbing inspector in the city of Brooklyn, N. Y., for many years, one of the best-beloved men in the profession, no matter what capacity, and first president as well as one of the founders of the Knights of Galena, died suddenly in the discharge of his duty upon Friday, Jan. 31.

Could it have been possible his confreres in the Knights of Galena would have postponed the annual reception and dance of the association, which was held at Labor Lyceum, Brooklyn, upon Feb. 3; but the idea, while respectful, was impractical, as the time was too short to recall invitations and properly communicate with those interested.

Mr. Doody had the traits of character which make for honesty, integrity and friendship. He was an honored member of the Plumbing Inspection Department for many years, during all of which he retained the friendship of the plumbers in his bailiwick and the esteem and respect of his superior officers. The deceased enjoyed as wide an acquaintance as any man in plumbing circles in Greater New York, and his untimely death will be the occasion of wide and sincere sympathy. We were intimately acquainted with the deceased for many years and regarded him as one of our close personal friends.

Mr. Doody was in his 65th year, though his activity and hustling spirit might well have been envied by those 25 years his junior. He is survived by one daughter, Sister Rose Gertrude, and a son, William J. Doody, a member of the craft.

The funeral was held at his late residence, 285 Warren St., Tuesday, Feb. 4, at 9.30 A. M. The remains were taken to St. Paul's Roman Catholic Church, Court and Congress Sts., Brooklyn, N. Y., where a solemn high requiem mass was offered.

A full delegation from the Knights of Galena and a representative body of his co-workers in the building department attended the funeral and escorted the body to Calvary Cemetery, where the interment was made.

RESOLUTIONS ON THE DEATH OF JAMES J. DOODY.

Whereas, An All Wise Providence has seen fit to remove from our midst, our friend and one of the founders of the Knights of Galena, James J. Doody.

Whereas, While we bow in meek submission to the will of the Almighty, we feel that our loss is irreparable, and one with which we can never become entirely reconciled, therefore be it

RESOLVED, That we express to the surviving members of our deceased brother's family, his beloved son and daughter, our deep and sincere sympathy at their, and our bereavement, and that a copy of these resolutions be spread in full on the minutes of this organization, printed in trade papers and forwarded to the family of our deceased brother.

P. H. GLEASON, THOS. A. MORAN, GEO. M. McCLOSKEY, M. J. KENNEDY, GEO. F. TRACY, JOHN GANNON, President; DANIEL A. MACKIN, Secretary.

Entertainment and Ball of the Knights of Galena a Rare Success.

ORDER OF THE KNIGHTS OF GALENA, veteran plumbers, steam and gas fitters, held its annual entertainment and ball at the Labor Lyceum, Willoughby and Myrtle Aves., Brooklyn, N. Y., upon the evening of Feb. 3, 1913. The invitations were generously responded to, and seven or eight hundred members, with their families and guests, arrived early so as to enjoy the splendid minstrel show, and other interesting vaudeville attractions which had been provided for their pleasure by the committee of arrangements.

Great praise is due these gentlemen for their painstaking services to make the night one long to be remembered for its many enjoyable features. The chairman of the committee, James J. Doody, was ably assisted by Secretary William Donaghy, Treasurer George F. Tracy, and Orator Patrick H. Gleason. Others upon this committee were C. J. Ahleblohm, James Campbell, W. A. Dudley, J. P. Killian, W. J. Blocth, R. L. Cranford, John A. Ebel, J. P. Meehan, Eugene Lambert, C. O. Beck, M. F Gleason, Peter Flohn, M Weirich, Thomas E. O'Brien, Samuel W. Campbell, W. F. Cairns, W. F. Heslin and William Jones.

The newly elected officers to serve during the ensuing year are John J. Gannon, president; George T. Madigan, first vice-president; John F. Abernethy, second vice-president; Daniel A. Mackin, recording secretary; Peter H. Woods, financial secretary; George F. Tracy, treasurer; Patrick F. Dunn, guard, and Patrick H. Gleason, orator.

The trustees are James J. Doody, M. J. McGrath and George F. McCloskey.

The music upon this occasion was furnished by Director Al. Ferguson, and after the performance had been concluded dancing was engaged in until 3 A. M., upon the following morn.

The grand march was led by President John J. Gannon upon whose arm rested the charming Mrs. M. J. McGrath. Pretty maneuvers were prompted by the floor directors, and applause met the various kelaidoscopic changes which were engineered by the tacticians.

The spirits of fellowship that prevails in the Knights of Galena is its most charming recommendation. The universal brotherhood of man is thoroughly exemplified at gatherings of these sterling old veterans. Old necessarily, because of their lengthy service in the noble cause of sanitation. But a more youthful set of old fellows eye hath never see. Youngsters might more properly describe the elastic and athletic manner in which they applied themselves to the more dignified waltz, the entrancing two-step, and the stately lancers and quadrilles. So proficient are they all that without question they could put on a turkey trottle or two, but the occasion demanded dignity rather than frivolity.

Refreshments were served in the adjoining parlors, and it was indeed a happy scene to watch, as each member vied with his brother in doing honors to the many guests of the evening. Lemonade was served the ladies, while more serious liquid bric-a-brac was indulged in by the gentlemen.

We had a rare good time, not reaching our domicile upon the home trip until time to relieve the milkman of his burden, in the hope that the milk and cream might develop less questioning as to the lateness of the hour from the good madame.

The trade was splendidly represented so far as manufacturers, jobbers and specialty houses were concerned. The following gentlemen were personally greeted by our W. G. McCormick: Al. Thill, Albert P. Thill Co.; H. W. Groesbeck, Brooklyn Water Heater Co.; Edward P. Ryder, Ronalds & Johnson Co.; T. M. Walsh, J. L. Mott Iron Works; Edward J. Bredehoft, United Lead Co.; Manager Cranbrook, the Armstrong Mfg. Co.; E. L. Delany, A. B. Delany, John J. Delany, Edward T. Griffin and James H. Caffray, Coyne & Delany; E. A. Twiss, the Haydenville Co.; Henry Bieg; H. Hellwig, Colwell Lead Co.; George W. Hauck, McElraevy & Hauck Co.; Wm. F. Van Wagner; Martin Behrer, Behrer & Co.; Wm. J. Florence, Burr Mfg. & Supply Co.; Robert Clarke; "Al" Sealy, George E. Sealy Co.; Richard J. Mullin; A. G. Ivers, E. F. Keating Co.; P. H. Powers, H. Mueller Mfg. Co.; Henry Gleichman and A. E. Cosgrave, Central Brass Mfg. Co.; J. L. Fox, Thomas M. De Laney; L. W. Cokefair, E. N. Cokefair; Arnold Behrer and "Bob" Smith, Arnold Behrer & Sons; James Winans and Harry Pohlman, the American Plumbing Mfg. Co.; Henry Haffner; George Smyth, Percy Rollings and Thomas McCormick, the Smyth-Donegan Co.; Messrs. Fee and Mason, Fee & Mason; Shapiro & Aronson; B. Sackin; Michael Weinseer, Saltser &

Weinseer; J. R. Williams, Occidental Co.; E. H. Schulz, United Brass Mfg. Co.; Frank Crotty, Central Foundry Co.; Frank Bedell, Alberene S. S. Co.; Mr. Kellogg, Richardson & Boynton Co.; M. K. Blackwell, Wolverine Brass Works; Wm. J. Ryan, prominent young architect, and many others.

The committee desires cordially to express its gratitude to the many manufacturers, jobbers and individuals who did so much for the material success of the occasion by their happy response to solicitation for advertisements. The work of the order is greatly enhanced in its usefulness and spirit of charity by the splendid contributions of its many good friends. The committee desires to perpetuate its thankfulness for this consideration, so productive of good feeling and co-operation, hereby. It also urges those who attended the function, and all others who desire good, fair and honest treatment, to extend a portion at least of their trade patronage to those who so generously rose to the occasion.

While the attendance of the members of the order was up to standard, we were not able to secure the names of all. However, we present the following gentlemen who, with their wives and members of their respective families, were personally greeted by our representative: John A. Scollay, William Eiermann, John F. Abernethy, John W. Sands and his brother-in-law, Mr. O'Reilly, all the way from Colorado Springs; John and George Gannon, Louis Frisse, Wm. J. McCaw, Eugene A. Lambert, Hon. Arthur J. O'Keeffe, Wm. Dedine, M. F. Gleason, James J. Keenan, Robert A. Austin, James I. Kelly, R. L. Cranford, Martin F. Mulligan, E. W. Daly, John P. Cash, Joseph Koppel, M. M. Vaughn, M Donin, Charles J. Donin, Wm. Conley, A. P. Hogle, David Cullum, T. A. Moran, Adam Klein, John J. Dillon, W. J. Bloeth, John F. Clark, John H. Sluus, Charles Williams, Messrs. McAuliffe and Clarke, M. W. Murray, John J. Simpson, William A. Hill, James Johnston, John D. Gunning, Martin J. Hayden, William Thompson, John Todd, P. H. Gleason, J. J. Killian, R. H. McChesney, Patrick Dunne, George J. Kay, William Levy, N Fehlinger, J. T. Harrickey, Wm. F. Walker, John Lyon, Edward Muller, George F. Tracy, William F. Heslin, Messrs. Wolf and Dingman, Daniel Cull, T. F. Harrington, William A. Crombie, Walter S. Ferguson, Edward D. Fox, Charles C. Breen, James C. McGuinness, Louis P. Giroerer, Louis Shanley, H. H. Hoffman, W. J. Minns, A. E. Minns, Thomas F. McEnaney, John J. Dixon, William Dixon, Joseph F. Corcoran, Messrs. Rosenberg brothers, John T. Harold, Philip Grossman, J. W. Linbarger, Charles F. Henning, Joseph P. Meehan, Oscar E. Swenson.

The Central Plumbing and Heating Co., of Rochester, N. Y., heating business, has been incorporated with a capital of $5,000, and the directors are Louis F. Zimmer, Edward J. Hutter and John W. Ash, of Rochester.

Racine, Wis., Plumbing Inspector's Report.

PLUMBING Inspector John Owens, of Racine, Wis., has completed his report for the year 1912.

The report shows that the trend in building is toward flats for two or more families. For, despite the fact that the number of building permits issued in 1911 and 1912 is just the same, the plumbing inspector's report shows that 126 more toilets have been equipped in 1912 than the year previous. In 1911 most of the permits were secured for buildings in which only one family lived, while in 1912 the permits were for buildings with two or more flats and where more than one toilet was installed.

The report of the plumbing inspector is as follows:

Plans submitted to plumbing inspector for plumbing and sewerage, 901; number of inspections made, 1,905; number of sewer permits issued, 312; number of plumbing permits issued, 589; number of water and gas permits issued, 656; total permits issued, 1,557.

Number of journeyman plumbers' licenses granted, 17; journeyman plumbers' licenses renewed, 28; applicants for master plumber's license given written and practical examination, 4; master plumbers' licenses granted, 3; master plumbers' licenses not granted, 1; master plumbers' licenses renewed, 20; drain layers' licenses granted, 7; master plumbers fined, 2; drain layers fined, 2; arrests and convictions for violating plumbing ordinance, 5; cases pending, 1.

Plumbing equipment installed: Cellar drains, 256; washbasins, 549; laundry trays, 10; waterclosets, 911; sinks, 782; bathtubs, 434; urinals, 23; down spouts, 881; catch basins, 371; bar wastes, 10; sanitary drinking fountains, 10.

The plumbing inspector says that the past year has been the most busy of his career.

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Cotton Fibre **Bibb Washers**

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Work..... Job No.....

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Owner..... Address.....

Tenant..... Address.....

Order.....

Description of Work Done.....

MATERIAL

Expense.....

Plumber.....Time.....Day.....Hours.....

Helper..... " ..... " ..... " .....

Laborer..... " ..... " ..... " .....

State of job at this date.....

Signed.....

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Manhattan Notes.

ED. KRAMER, of 2752 Eighth Ave., Manhattan, reports business brisk among the Harlem plumbers, and was never better. The recent cold spell kept them on the jump.

Baker & Cash, of 218 East 21st St., have a number of good plumbing, steam and hot water jobs on hand, and are looking forward to a good Spring trade.

Fred W. Feinholz is one of the busy Manhattan plumbers. His overhauling jobs have kept him on the jump since the first of the year and he is figuring on some nice contracts. His shop is at 301 West 127th St.

A busy East Side firm of plumbers is M. Ross & Co., of 103 Orchard St. They are quite busy on tenement house work.

Greater New York Master Plumbers' Association Elect Officers.

THE annual meeting of the association was held at the Lexington Opera House, Wednesday, Feb. 5, 1913, at which the following were elected:

President, Isaac J. Brown, Manhattan borough; first vice-president, William J. Flynn, Bronx borough; second vice-president, D. J. Donovan, Brooklyn borough; recording secretary, George H. Creasy, Manhattan borough; financial secretary, Stephen H. Welch, Bronx borough; treasurer, John F. Rogers, Queens borough; sergeant-at-arms, James Jarcho, Brooklyn borough.

Board of Trustees—Ed Macdonald, Brooklyn borough; Bart F. Donohoe, Manhattan borough; George M. O'Connor, Queens borough.

The secretary's address is 1084 Lexington Ave., Manhattan borough, where communications should be forwarded. All the branches were well represented and every one of the various committees made stirring reports of their untiring efforts and the results accomplished in the past year.

M. E. Conran Co. Incorporated.

UPON and after March 1 the M. E. Conran Co., Inc., at 47 and 49 Bergen St., Brooklyn, N. Y., will make its demand upon the steam trade for a portion of its patronage. Mr. Conran has been active in the steam line for fourteen years, during all of which time he represented one of the largest houses in the country. He has developed many friends and valuable connections, and his entrance into the steam supply world is an auspicious one in every respect.

He has been connected with the trade throughout his entire working career, and therefore the atmosphere in which he lived might properly be said to have been a trade one. His brother, James F. Conran, has been the New York manager of the Standard Sanitary Mfg. Co. for fifteen or twenty years, and another brother has also been connected with the trade indefinitely.

Mr. Conran will have as his associates young gentlemen who have been his fellow workers for many years, and his office and store equipment will be all that may be desired. Experience of a practical nature covering a lengthy period, with cheerful and courteous treatment, may be relied upon in Mr. Conran's case to bring him an early success.

Steam goods, steel and wrought iron pipe, boiler tubes, fittings and valves; in fact, a complete general line of steam supplies and accessories will be carried in stock. Pipe to sketch will be cut up to eight inches.

Congratulations have been pouring in upon Mr. Conran since his intention to embark upon his own account. The pleasantest relations exist between him and his former connection, and the mutual good feeling is indicative of the esteem in which he is held by his late employers and the high regard in which he is held by them.

THE MERCHANT PLUMBER AND FITTER cordially extends its felicitations on what it is sure will be a happy and profitable embarkation.

Eastern Supply Association Meeting.

THE next regular meeting of the Eastern Supply Association is scheduled for Feb. 19, 1913, at 1:30 p. m., at the Hotel Astor, at New York city. We are advised by Secretary Frank S. Hedley that so many members have signified their intention of being present that an unusually large attendance will be noted.

Downward Revision of Charges for Sewer Connection Hoped For.

THERE is being presented to the Board of Aldermen by the Master Plumbers' Association, through its committee, resolution looking to a uniform charge for sewer connections in the five boroughs of the Greater City. In pretty near all instances, if the resolution is passed and its provisions enacted into law, it will result in a downward revision. The chairman of the committee having this economical proposition in hand is Wm. J. Flynn, vice-president of the Greater New York Association. His fellow committeemen are Edward J. Belford, Brooklyn; Bart F. Donohoe, Manhattan; John F. Rogers, Queens, and W. J. Barry, Richmond. The committee is sanguine that its wishes in the matter will prevail with the City Fathers.

Anent Rebates Upon Asphalt Pavements.

THE committee which has been waiting upon Deputy Comptroller Mathewson, Manhattan, in connection with the rebates upon asphalt pavement has been progressing with its work satisfactorily; and the results of their efforts with the Comptroller's Department regarding an equitable adjustment of this important question are expected to be entirely successful.

Wm. J. Flynn, Bronx, is chairman of this committee. Others assisting him are J. L. Murphy, Manhattan; J. J. Dinan, Brooklyn, and S. H. Welch, Bronx.

United Lead Co.'s Annual Banquet.

ON Jan. 24, 1913, the United Lead Co. tendered a banquet to its selling force. There were present upon this happy occasion, which was fittingly celebrated at Keen's Chop House, Broadway, New York city, the following gentlemen: President, J. W. Wetstein, Mr. Morgan, Raymond Lead Co., Chicago, Ill.; T. H. Markillie, sales manager; G. B. Coho, manager lead rope department; M. Bunker, New England salesman; Cliff Babson, manager U. S. Cartridge Co., and George E. Heim, New York State and Manhattan solicitor.

Felicitous addresses were made by President Wetstein, T. H. Markillie, G. B. Coho and Mr. Morgan.

Several solos were rendered by Mr. Heim, to the delight of the diners.

A New Catalogue.

UNITED BRASS MANUFACTURING CO., of Cleveland, has just issued its new catalog "C" illustrating Ground Key work, Compressive work, Fuller work, bath cock combinations, brass valves, solder supplies, solder unions, gas cocks and other plumbing specialties. Since the publication of the last catalog their work has been added to, and they now make a complete line of the goods mentioned. Our readers can obtain a copy by writing the above firm and mentioning the MERCHANT PLUMBER AND FITTER.

Henderson Revokes Plumber's License.

THE registration in the bureau of buildings, Borough of the Bronx, of Joseph Shanske, plumber, 1317 Wilkins Ave., has been cancelled and annulled by James A. Henderson, superintendent.

Charges were preferred against Shanske by the superintendent of buildings for violation of the plumbing rules in the installation of rough plumbing work in premises on the northeast corner of Vyse

Ave. and 172d St. The plumber installed a blind vent pipe for sink trap in the cellar, and also failed to vent a basin in the janitor's apartment.

Plumbing Inspector O'Toole discovered the violations on Dec. 19, 1912, which he immediately reported to the bureau. The following day, December 20, Edward J. Duffy, business agent for Plumbers' Local 498, called on the superintendent of buildings to complain of Shanske's work and was shown the record of the violation and was informed that charges would be immediately filed against Shanske.

The cancellation of Joseph Shanske's registration prohibits him from engaging in any plumbing work in the Bronx as an employing or master plumber.

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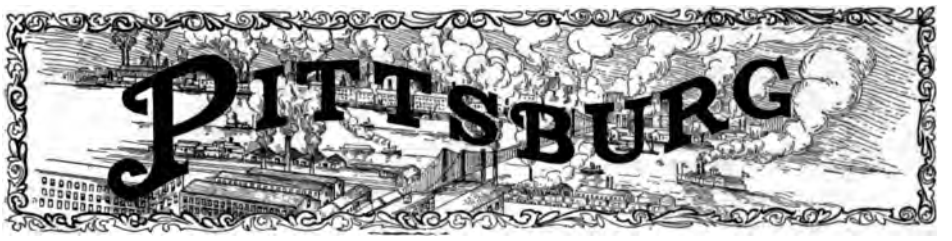

THE last of the three cargoes of plumbing supplies recently left the Philadelphia harbor, the entire shipment being from the local plant of the Standard Sanitary Mfg. Co. In all the shipments comprised more than 4,000,000 pounds of materials, consisting of 10,423 bath butts, 18,827 lavatories, 229 miscellaneous fixtures and 22 boxes of brass goods. The total number of cars needed to haul the goods from this city to Philadelphia was 183.

The first shipment, which was the largest, went aboard the American clipper *Erskine M. Phelps*. Seventy-two carloads were sent to Philadelphia for this shipment, but it was found that the *Phelps* could not carry the entire load, so eight cars of the goods were placed aboard the steamer *Windber*, which sailed shortly before the *Phelps*. This complete shipment consisted of 4,155 bathtubs, 6,799 lavatories, 700 laundry trays 162 miscellaneous fixtures and 22 boxes of brass fittings, a weight of considerably more than 2,000,000 pounds.

The second cargo went on the clipper *Manga Reva*, this consisting of more than 50 carloads of goods, weighing more than 1,000,000 pounds. The third went aboard the clipper *John Ena*, and consisted of 56 cars of goods weighing over one and one-quarter million pounds.

The entire consignment took the Cape Horn route, a distance, all told, of more than 12,000 miles from Pittsburgh to the destination, San Francisco. Under favorable weather conditions, this voyage takes about 120 days to make. With the completion of the Panama Canal about half of the distance between these ports will be eliminated.

The master plumbers of Homestead, Pa., have formed the Homestead Master Plumbers' Association, beginning business with nine members. The first meeting was held recently and the following officers elected: President, Charles McCrea, of McCrea & Sutcliffe; vice-president and treasurer, Gustav W. Goeddel; secretary, George H. Metcalf. Meetings will be held every two weeks.

The association was formed for the betterment of the plumbing industry in Homestead. The organization is affiliated with the Pittsburgh Master Plumbers' Association and will send delegates to the gatherings of that organization. Organization, state the members of the new association, will do much to end alleged unsanitary conditions in the tenements of Homestead, thereby eliminating much disease and making the town a better one to live in.

The following comprises the membership: Wickes & Co., Gibson Plumbing & Heating Co., Charles F. Greiner, Gustav W. Doeddel, O. P. Lawson, George W. Metcalf, McCrea & Sutcliffe, John McLean and Alfred Ackerman.

The Alpha Supply Co., of Pittsburgh, was formed recently, and on Feb. 1 opened offices in the Century building. The concern will carry a full line of plumbers' supplies. Frank J. Merhmann, formerly of the Anchor Sanitary Co. and the Bailey-Farrell Mfg. Co., and C. M. Stevenson are associated with the new enterprise. Both men have had many years of experience in this business and are ably fitted to make the new company an entire success.

The Master Plumbers' Association of Pittsburgh will hold its annual banquet in the Fort Pitt Hotel on Feb. 17. The affair is in the nature of a social gathering, as the ladies have been invited to attend. A complete list of the new officers and committees for 1913 follows: President, F. J. Hanley; vice-president, J. D. Stanton; second vice-president, J. F. Matter; secretary and treasurer, E. M. Tate; sergeant-at-arms, C. E. List; ex-officio, W. H. Rowswell.

Committees: Members at large—A. Redenbaugh, H. R. Wickes and M. S. Martin.

Investigating—F. J. Hanley, chairman; J. D. Stanton, J. F. Matter, E. M. Tate, C. E. List, W. H. Rowswell, A. Redenbaugh, H. R. Wickes, M. S. Martin.

Conference—George Rodgers, chairman; R. J. Hannan, T. R. Marshall, J. C. Leubin, M. S. Martin.

Auditing—George B. Stewart, chairman; P. J. Montague, H. M. Hay.

Entertainment—Robert Henderson, chairman; T. F. Scanlon, F. J. Scheib, Joseph Drum, George F. Schade.

Banquet and Hotel—W. H. Rowswell, chairman; E. M. Tate, S. S. White, John B. Paul, George Rodgers, Jacob Soffel.

The Valley Plumbing Co., of East Pittsburgh, was recently granted a State charter. The capital of the concern is $5,000. The incorporators are: Frank R. Magill, Pittsburgh; John S. Kiehl, Irwin, and G. M. Kerr, East Pittsburgh.

W. H. Williams, of Braddock, has received the contracts from the United States Government to do the plumbing work in the new post offices in Braddock and Homestead. As well as doing the plumbing work, Mr. Williams will install the heating, gasfitting, sewerage and mechanical equipment for the water supply of each building. Mr. Williams is well able to carry out the contracts, as he has finished several large contracts and has a large force of men to put to work on them.

The Standard Duckpin League of the Standard Sanitary Mfg. Co. recently resumed the season after a lay-off since before the holidays. High scores are being made by all teams, there being eight, and a nice race for highest honors at the end of the season is looked for.

Excavations have been started for the erection of a one-story brick boiler room addition to the plant of the sanitary manufacturing company of Dawes & Myler, New Brighton. The work will cost about $10,000.

John B. Reid, aged 57 years, one of the oldest and best-known traveling salesmen in the plumbing supply field in this district, died in his home in Whitney St., Wilkinsburg, on Jan. 13. Mr. Reid was connected with the Standard and Duquesne sanitary manufacturing companies for years, before that being employed by the plumbing supply and manufacturing house of William G. Price & Co., years before the Standard opened a store in this city. He leaves two daughters and two sisters.

On Jan. 15 Thomas J. Roney, for more than 12 years foreman for Stinson, Kennedy & Co., of Pittsburgh, one of the city's large plumbing contractors, died in his home in Monticello St. after an illness of one week. Mr. Roney was born in Pittsburgh and learned his trade here. For the past four years he had been an instructor in the plumbing classes in the Carnegie Technical Schools of this city, doing this work at night.

The master plumbers of this district held a meeting that lasted until midnight on the evening of Jan. 3, the lateness of the gathering being caused by a decision said to have been reached by the supply dealers. It is said the supply men have agreed that the master plumbers must pay for the hauling of the goods they purchase.

While no official action was taken by the master plumbers, it is said that all were angry at the action of the supply men and that they would not allow themselves to be imposed upon. Other meetings will be held later at which definite action will be decided upon. It is said that already some of the master plumbers are buying their supplies from hardware dealers and similar outsiders until the supply men see the error of their ways.

J. J. McKee, financial secretary, and E. F. Welsh, business agent, were recently re-elected to their places by members of Local Union No. 27, United Association of Plumbers, Gas Fitters and Steam Fitters. Both men are veteran officials. The president named for the year is J. W. Slattery, while Charles Lawrence is recording secretary and Carl Anderson treasurer.

George H. Albertson, formerly president of the Duquesne Sanitary Co., Pittsburgh, Pa., and his son, Wilbert Albertson, have formed the Vulcan Motor Truck Service and have opened headquarters at 429 Liberty Ave. They are handling the Vulcan service truck, made by the Driggs-Seabury Ordnance Co., of Sharon, Pa., and the Service motor truck, made by the Service Motor Car Co., of Wabash, Ind.

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Franklin A. Merrick, aged 67, for 25 years Brighton, Pa., well known to the plumbing trade of the Ohio Valley, died recently in his home in that town. Mr. Merrick was engaged in the plumbing business with his son, the late Harry D. Merrick. He was a pioneer manufacturer of that district. Mr. Merrick was a Civil War veteran, having been made a lieutenant in 1865 in Hampton's Battery. He was wounded at Gettysburg. Mr. Merrick leaves a wife and one daughter.

Donald Chisholm, aged 56, for 25 years head of the Chisholm Plumbing Co., of McKeesport, died in his home in that city late in December. He had resided in the Tube City for 33 years, having gone there from his native home in Scotland. He was a member of the Presbyterian Church and the Masonic fraternity. Mr. Chisholm left three daughters and three brothers.

Mrs. Teressa Wey, wife of Albert Wey, of Wey Bros., north side master plumbers, died on Dec. 26 in her home in Middle St.

PENNSYLVANIA NEWS.

WORK will be started shortly on the installation of a hot water system in the Government building at the corner of West Fourth and West Sts., Williamsport, Pa. The new system will include a hot water heater and boiler.

A new heating plant, in the shape of a brand new stove, has been installed in the reading room of Renninger News Agency, at Emaus, Pa.

Joseph M. Madden of Centralia is about to engage in the plumbing, tinning and steam heating business in Mount Carmel, Pa., in the *Daily News* building at 42 West Third St.

W. H. O'Brien is reorganizing the whole heating system at the Lyric Theatre at Butler, Pa.

Joseph G. Thopman of Connellsville, Pa., has succeeded W. G. Duguid, who went to Florida as general manager of the Yough Plumbing Co.

Harry Krapf, of 590 North Church St., Hazelton, Pa., intends to go into the plumbing business for himself next Spring.

Repairs and alterations to the steam and exhaust pipes of the Philadelphia city hall will be made at a cost of $5,200. The West End Heating and Engineering Co. is the contractor.

Thomas Regon, of Dunmore, Pa., has taken over the plumbing business interests of T. J. Hughes, of Calvin and Chestnut Sts.

A. K Davis has opened a plumbing and general repair shop in West Zollarsville, Pa.

The school directors of Antrim, Pa., township have purchased a Waterbury heating plant for the Midway school house.

Ohio News.

GEERIN BROS., of Cincinnati, O., will install the heating and ventilating system in the new Hotel Gibson. This is one of the most important branches of the new improvements from a cost standpoint. The contract was let through Bert Baldwin & Co., in conjunction with Architect G. W. Drach.

The Bowus Mfg. Co., of Springfield, O., has been incorporated for general plumbing business, both manufacturing and dealing. Capital, $25,000. Incorporators: Harry C. Bowlus, C. Schindler, Frank H. Kredel, J. Russell Smith and W. W. Witmeyer.

The Crain-Stuart Co., located at 28 S. Limestone St., Springfield, O., has purchased the plumbing business of the R. H. Desormous Co., plumbers, on S. Fountain Ave.

Forrest Thompson, of Piqua, O., was let the contract for the plumbing on the women's comfort room which is to be placed in a section of the room occupied by the city engineer.

The contract for the heating and ventilation of the new Baptist Church building at Canton, O., was let to the Geisler Co., of Pittsburgh, at its bid of about $4,300

Another new building for Walnut St., near 6th St., Coshocton, O., is being planned by Charles A. Brode, in which he will locate his plumbing shop. Work on the new structure will be begun as early in the Spring as the weather will permit.

To End Plumbers' Disputes.

CHARGES of Cleveland plumbers that one or two plumbing firms are being given preference in plumbing repair work on public school buildings are expected to be eliminated by a new plan soon to be put into effect by Director Hogen.

The new plan, which will apply to emergency work only, contemplates the division of the city into 10 districts. Plumbing firms in the several districts will be asked to submit proposals on an annual basis for doing repair work. In emergency cases the plumber in the district where the work is necessary and who submits the lowest price will get the job.

Plumbing Report Shows Good Work.

CITY Plumbing Inspector B. F. Nye, of Akron, O., has completed his report for 1912, which shows that much new work has been carried on during the year, and that the city plumbing department is an important factor in protecting the city health.

Most of the new houses which have been built in Akron during the past year have been along modern lines, and Inspector Nye has also issued permits for the improvements in a number of the older buildings in the city.

The report follows: Waterclosets set, 2,451; bathtubs set, 1,478; washstands set, 1,868; sinks set, 1,704; trays set, 97; urinals set, 110; drinking fountains, 16; slop sinks, 18; shower baths, 19; bar connections, 15, and soda fountains, 2. This makes a grand total of 7,778.

Alliance, O., Plumbing Ordinance of the City Is Shown to Be Defective.

WILLIAM SMITH, an employe of the Household Supply Co., Alliance, O., was arrested Jan. 29 charged with doing plumbing work without a city license. The trial of the case was conducted Jan. 31. The city was represented by Solicitor W. M. Roach and the accused by Attorney A. R. Temple. Witnesses were examined to determine what constitutes plumbing, and if their testimony can be relied upon it will be necessary for a person to secure a licensed plumber to do any kind of pipe fitting. It was shown by evidence that Smith had done some pipe fitting and that it was this that caused his arrest.

When the evidence had been submitted, Attorney Temple made a motion to dismiss the case and assigned three reasons for the motion, the third reason being that the Supreme Court of Ohio had decided that a law of the State regarding the licensing of plumbers had been dissected by the court and seven sections of the same declared unconstitutional. The city ordinance of Alliance makes it compulsory for anyone before engaging in plumbing work to take and pass an examination and receive a license before engaging in the work. Inasmuch as the city ordinance was in conflict with the State law declared unconstitutional, the court sustained the motion and dismissed the case.

Utica Heater Company.

THE following directors were chosen at a meeting of the stockholders of the Utica Heater Co., held Jan. 18: George C. Hodges, Arthur B. Maynard, J. DeP. Lynch, Aras J. Williams, Campbell E. Hodges, William W. Lowery and Edward Norris. M. D. Waldron and H. D. Thomas were chosen inspectors of election. The following officers were elected at the directors' meeting: President, Edward Norris; vice-president, C. E. Hodges; secretary, S. T. Bossett, Jr.; treasurer, William W. Lowery.

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Convention Dates.

Feb. 18, 19 and 20.—The 22d annual convention of the Ohio State Association of Master Plumbers, at Toledo, O., with headquarters at the Boody House.

Feb. 19.—Meeting of the Eastern Supply Association at Hotel Astor, New York City.

Feb. 19.—Annual convention of the Minnesota Master Plumbers' Association at Minneapolis, Minn. The sessions will be held at the Builders' Exchange.

Feb. 20 and 21.—Annual convention of the Nebraska Master Plumbers' Association, at Fremont, Nebr., with headquarters at the Eno Hotel.

Feb. 24 and 25.—Annual convention of the Missouri Master Plumbers' Association at Joplin, with headquarters at the Connors Hotel.

Feb. 26.—Meeting of the Central Supply Association at the Sherman Hotel, Chicago.

March 11 and 12.—Annual convention of the New York State Association of Master Plumbers at Buffalo, with headquarters at Hotel Iroquois.

March 18 and 19.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium.

April 15 and 16.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa.

May 20, 21 and 22.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky.

May 27, 28 and 29.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind.

June 17, 18 and 19.—Annual convention of the National Association of Master Plumbers at Philadelphia, with headquarters at the Bellevue-Stratford Hotel.

June 23, 24 and 25.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gombers, 260 West Broadway, New York City.

Extensive improvements are being made on the Lake View House at Sparta, N. J. An extension is being added and an elaborate system of plumbing is being installed.

Manufacturers of Plumbers High-Grade Woodwork.

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PLANT OF THE WM. BURROWS MFG. CO., 434 KENT AVE., BROOKLYN, N. Y.

This concern makes a specialty of manufacturing plumbers' woodwork to order, and we would advise our readers desiring such work to communicate with them.

The Daughtry Heating and Plumbing Co., of Bowling Green, Ky., have been awarded the contract for installing the plumbing and heating fixtures in the new McCormack building.

New Officers for the Cleveland Association.

THE Cleveland, Ohio, Master Plumbers Association at a recent meeting elected new officers and a board of directors as follows:

President, G. J. Wehrle; Vice-President, Karl J. Knuth; Secretary, Eb. Ellen; Treasurer, Henry Derspacher; Sergeant-at-Arms, Frank C. Grimm.

The board of directors follows: Chairman, Karl J. Knuth, A. W. Southwell, E. E. Hill, Thomas P. McDermott, A. L. Bacher, W. H. Cleveland, A. W. Stark, H. W. Eckhardt, W. E. Boyer, F. E. Manney, Wm. Koestle and John B. Meyer. The delegates to the State convention follow: G. J. Wehrle, E. E. Hill, H. W. Eckhardt, Thomas McDermott, A. W. Southwell, A. L. Bacher and F. E. Manney, and the alternates are Peter Dunn, Wm. Koestle, John Leese, Henry Gerspacher, Frank C. Grimm and Karl Knuth.

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Published Semi-Monthly at 200 Fifth Ave., New York, N. Y.

NEW YORK, FEBRUARY 25, 1913.

By the Merchant Plumber and Fitter Publishing Co.

Opportunity—A Talk to Iowa Plumbers.

By ADOLPH MUELLER.

Before Iowa Master Plumbers' Association, at Sioux City, Ia., Jan. 15, 1913.

"Master of human destinies, am I!
Fame, love and fortune on my footsteps wait,
Cities and fields I walk; I penetrate
Deserts and seas remote, and passing by
Hovel and mart and palace, soon or late,
I knock, unbidden, once, at every gate!
If feasting, rise; if sleeping wake, before—
I turn away. It is the hour of fate,
And they who follow me
Reach every state mortals desire
And conquer every foe, save death.
But they who hesitate in doubt,
Condemned to failure, penury and woe,
Seek me in vain and ceaselessly implore,
I answer not, and I return—no more."

THIS little verse from the pen of the late John J. Ingalls, scholar, soldier, statesman and orator, probably has been quoted and reprinted oftener than any equal number of lines during the past 25 years. And yet, it is not true. It is beautiful, and its beauty is so marked that it dethrones the analytic power and enforces its specious argument upon the unthinking mind.

If this poetic fancy were true you could count the successful men on your fingers. Opportunity comes more than once. It is knocking at our doors all the time. It is not the fellow answering once that wins—it's the fellow who answers every time he hears a "rat-a-rat." He is the man who "reaches every state that mortals desire" and "conquers every foe." And he is no extraordinary fellow either. Just a plain, everyday citizen, wise enough to seize every opportunity and turn it to his own advantage. It is the many times he does this that puts him head and shoulders above the crowd that gave up because they did not heed the one knock and are now devoting their time to "ceaselessly imploring" another chance.

Forget the chance you missed and make up your mind not to miss any more. Don't cry over the spilled milk of opportunities. If we all made a business of doing this another ark would be necessary to float out of the flood of tears. Life is opportunity. We get this word from the Romans. It means "near port," "close to haven," and is an invitation to see something better than the position you have. Even when you face hardships and disaster have the courage and enthusiasm to grasp an opportunity. Grab it—even if it is small—it will lead to a bigger one. Opportunities of advancing and doing good are always with you. Our power and our worth will always be proportionate to the industry and perseverance with which we make the right use of the ever recurring minor occasion whether for becoming good or doing good.

The disbelievers in opportunity are voluble with excuses. They can't meet it, they have no leisure, they have not the means. Any or all of these are given as an explanation of their failure to do what they should have done—grab the opportunity. Have a definite aim and purpose and opportunities will come so fast that you will find yourself climbing to your ideals with surprising rapidity.

Get the habit—that's all you need. I did not come here to sermonize, to lecture, or to tell how to do a thing, but I believe that all of us are better business men and better citizens if we occasionally take stock of ourselves and see whether we are measuring up to our talents; to learn whether we are brave men in upholding and battling for the truth and our rights, or cowards in falling below what is our right in this world of bustle and business.

A man may be a hero physically and a coward morally, or he may be a hero morally and a coward physically. To do your duty either physically or morally requires courage, and you must have moral courage to be a successful business man. You must determine a policy, ideals and aims, and live up to them, stand up for them and fight for them.

If you don't do this you are not grasping and getting the most out of your opportunities.

Did you handle your opportunity right when you gave John Smith credit for a big plumbing bill, knowing he was not good pay? You had to pay your men and your material bill. Was it lack of moral courage which prevented you from saying: "I want your work, Mr. Smith, but must have some positive assurance of getting my money." What if you had lost the job? It would have been better to have lost it than to hold the sack.

It's my business to find out about men's financial standing and to pass on credits for my company. When it's necessary to refuse we don't do it maliciously. We show the customer a reason and do our best to help him improve his credit. Once in a while a man gets offended at us, but most of them thank us and become our friends. We have to do it. We could not do business if we did otherwise. The plumber must do it too, if he is to prosper. Don't be afraid to tell a man, who is known as poor pay or a cheat, that you must be secured.

Did you measure up to your opportunity when a citizen entered your store and asked prices on tubs and lavatories? Did you tell him a tub could be bought for $15 or as high as he wanted to pay and let it go at that?

Or did you tell him why one tub was cheap and another high priced, explaining something of the process of manufacture, of enameling, of patterns, of advantages, etc. If you did the former the chances are

the citizen left unimpressed. If you did the latter, showing him you were familiar with the subject, he left you impressed, and the chances are, studying over the question of which tub to buy. Instances like these are opportunities of salesmanship. You should be sufficiently informed on processes of manufacture to make the most of them. Suppose you went into a drygoods store and were told silk was worth 75 cents to $3 a yard—what would you do? Why, you would go out saying that salesman did not know his business. He had not told you anything about the price. What you wanted to know was why one kind of silk cost 75 cents a yard and another $3. The price indicated that $3 was better than 75-cent silk. But why? That's what you wanted to know. That's what your customers want to know about your goods. you can make sales, you can arouse interest, you can convince if you know all about your goods and grasp your opportunities.

Are you equal to your opportunity when a customer says brass goods are high in price? Do you say "that's so," or do you say, "Yes, they do seem so, but you know that copper is a large part of brass, and copper in a raw state is high priced. You can see this for yourself in the daily market quotations. Then the other parts of brass—lead, tin and zinc, are costly. They must be mixed together, moulded and machined by expert workmen. Each article must be handled many times before it is completed. Therefore you can understand that brass goods, in reality, are not high priced, but are very reasonable in price." If you make this explanation it's a hundred chances to one you will win your case. Customers don't stop to think of these things. You must think of them and tell them.

In this connection I would like to say incidentally that we are always pleased to have plumbers call on us and go through our factory. We want you to do it. It will give you a better insight into brass manufacturing. You will understand the process better and be in a better position to talk to your customers. This not only applies to our line of goods but to all other lines of goods which you handle. Whenever you have an opportunity to personally investigate the methods of manufacture of goods you handle, do so by all means.

And so on through the piece. The opportunity is constantly before you and it's up to you to meet it, to make the explanation necessary to clear away doubt. To do this you require knowledge of the goods you handle. You must be able to tell why good goods are superior to cheap goods. Why a certain pattern is better. Why guaranteed goods with the maker's name are a safe investment Why nondescript goods are a poor investment. In fact, you must study and learn to apply the elementary principles of salesmanship. When you have done this you will come nearer than you ever have in your life to being a successful plumber. You'll come near to it, you'll be a successful plumber.

There isn't a manufacturer in the United States who would keep a salesman on the road if he did not know and could not talk his line of goods. We would not. And we don't want our salesmen to tell you anything but the truth. That's our policy. A salesman who goes beyond that ceases to be a salesman, he is a cheat, falsifier and not worthy of confidence. There are other opportunities for your betterment which can best be worked out through organizations. There is the opportunity of contracting direct with the owner and not through a general contractor. Why should the plumber be the tail of everybody's kite? You are business men, you are competent. you are capable, and you should wherever possible do business at first hand. There is no good reason why you should have someone standing between you and the man you are actually working for. Here is a great opportunity for the plumber. Your portion of every building is the most important portion of the work. Nothing else equals it. Without your skill no big building of to-day would be inhabitable. Absolutely there is no work of equal importance to yours. If it were not for the highly developed state of the plumbing trade to-day there would be no Metropolitan Tower and no 55-story Woolworth building towering above all other buildings in the world. Does not that suggest to you something of your importance, of the great need of you in the world, of the great opportunities before you, of your right to contract direct and not through someone who may not know the difference between a sill-cock and a bath cock? It is a question entitled to your serious consideration. It's an opportunity to meet and you should meet it right.

There are other opportunities to which I have referred in previous addresses to plumbers, and it's not necessary to go into details regarding them now, but they are worth remembering. They are all up to you. When it's all said and done the man himself is the final summing up of the case.

Among the opportunities that are knocking at your door are these:

Being better men in a moral, business and technical sense. Improvement by studying literature bearing on your trade. Square business competition and square dealing with your trade. Insistence on a fair living profit. Better business methods, shop systems and a thorough knowledge of figuring into your estimate a legitimate overhead expense covering such costs as do not manifest themselves in material used and labor actually expended. Elevating your calling to a higher standard through individual and combined efforts. Urging the use of materials of recognized excellence. Submitting all estimates and figures in writing. Making out your bills the first of each month and collecting them.

There is your opportunity of knowing about your costs—the most vitally important of any which confronts you in your business. Without this knowledge you can't hope to be successful. It's an opportunity you must not let slip by. Don't accept cost as what your material and your labor represent with 10 or 15 or 20 per cent. added for profits. That's only part of your cost—the visible part. There is the intangible part with which you must reckon if you are to make a profit on your work. That intangible portion is known to-day as the "overhead." It embraces the salary of your bookkeeper and salesman, freight, drayage, delivery, insurance, interest, taxes and all such items. They are a positive part of your costs, and every sale you make and every job you do should have its legitimate portion of this cost added to it. If it has not you are not making money on the sale or job. If you do not add it you are neglecting an opportunity.

Just what per cent. of your costs is represented in this overhead expense may vary according to locality and conditions, but it has been conservatively estimated at 25 per cent. It is present in every business, big or little, and it must be recognized and reckoned with just as certainly as you recognize and reckon with your visible costs.

Here is another opportunity that you plumbers should grasp—that of a systematized method of cost accounting. You might not be able to do this as individuals, but you can do it as an organization. I don't believe you Iowa plumbers could do a wiser thing than to employ an expert to devise such a system, a sort of a general system with sufficient elasticity to apply effectively to the smallest and largest plumbers in the State. He could do this by studying the basic principles underlying the plumbing business, and harmonize the conflicting conditions of localities, so that you would have a general rule to follow. Now don't think that an expert who has neither practical knowledge of, nor technical training in, the plumbing business can't do this. He can, and I know it from experience.

As manufacturers we thought we knew all about our costs and all about our business. That was one point we were proud of—maybe a little bit "swelled up" or "stuck on ourselves," as the slang of the day goes. But we finally put an expert systematizer to work in our factory and again resorting to slang, "he showed us" that there were a heap of things about our business that we did not know. And just as it will develop in your business, it developed in ours, that it was the common little things that we had been overlooking. Things that we were taking for granted just because someone had said that they were right and they had grown into regular everyday practise. We are not the only manufacturers who were compelled to have our eyes pried open by an efficiency expert. The Studebakers had to do it, the National Cash Register had to do it, and hundreds of others besides. And I say as a State organization you ought to do it for the benefit of the trade throughout the State. You will find it money well spent.

I made the statement some months ago that unjust suspicion rested on the trade. This is due to the "plumber joke," the caricature and the unjust reflections of persons unfamiliar with the business. It is gradually being dissipated, I am happy to say.

But the opportunity is still here for you to do good in this direction. Never let an opportunity go by to refute these evil jokes of reflections on your calling. In addresses delivered by me last year I had considerable to say on this subject. I put

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my opinion in practise at every chance, and the plumbers at Decatur did likewise. The effect was good, excellent in fact. Decatur newspapers are very cautious in what they say about plumbers. Let me cite you to an instance. At the annual banquet of our salesmen at the Decatur Country Club, Saturday evening, Jan. 4, there was present as a guest, Warren J. Hardy, managing editor of the Decatur *Herald*. When called upon to speak he said he had learned from my addresses some truths about the injustice done to plumbers by ill-advised publication, and that he could speak from experience. In spite of his orders to keep such stuff out of the paper, an interview with a disgruntled citizen was published, and it was cited that in a Southern town a water meter could be bought for half of what it cost in Decatur. As a result of this interview Mr. Hardy stated that he had to publish a two-column explanation signed by the Decatur plumbers. Now he is doubly careful about what he prints concerning plumbers. Mr. Hardy very manfully admitted that the original interview was misleading. In fact, it was untrue. We helped the Decatur plumbers correct this and were glad to do so. The facts briefly are these: The price of the meter was the same. In the Southern city the plumber sold the meter separately. In Decatur he sold and installed it. In the case of the disgruntled citizen who gave the interview it was necessary to change all cocks, stop and wastes, etc., to make the installations, it being an old house. The meter was sold at exactly the same price as in the Southern city, but the Decatur man simply charged his whole plumbing bill against the meter then compared the cost to the regular selling price of the meter by itself, and yelled "robbers," "sand-baggers," etc.

Every time a false accusation is made against you—defend yourself through the papers. Answer through the same paper in which the false charge is made. Editors don't like to have to back up. It won't take long to educate the editors in your town as they are educated in Decatur, because as a rule, the editor wants to be truthful, fair and honest with his readers.

And so I could go on almost indefinitely, for opportunities are knocking at your door all the while. Don't neglect them. If you do you'll not succeed. Listen to the advice of the best men in your business. All men cannot originate new ideas, but all men can adopt them. It's not dishonest, belittling or humiliating to do this. It has been done time without number since the world began. If you see an idea working in another man's business to his advantage, apply it to your own. You may rest assured that if someone discovers that you have applied a good original idea to your business he will adopt it.

Keep digging, never quit. And you will win in spite of obstacles. Don't quit because you have experienced a backset. Forget it and dig harder than ever. Remember that opportunity does knock more than once at every man's door.

If I have spoken frankly to you plumbers to-day it is because I am deeply in sympathy with your business, because I want you to succeed and prosper. I know the plumbing business from experience. We were plumbers just like you before we became manufacturers. I have been up against nearly all of the problems that confront you. I know that for many years the public held unjust suspicion against this business. I believe this is gradually being changed, that the trade is reaching a higher standard and that its best days are yet ahead of it.

Such advice as I have offered is not new. It is the result of observation and experience. We grabbed every opportunity as plumbers and began as manufacturers in a small way. It was a hard up-hill fight, and frequently we slipped back and the outlook was cheerless enough, but we did not give up. We dug, dug, dug, day and night and such success as we have attained came through perseverence and a determination to win. While I may say with pardonable pride that we have reached a successful position in the ranks of brass manufacturers, I want to assure you that it has never alienated our sympathy from the man who is still in the plumbing business, and I feel that I can say without fear of the accusation of egotism, that no firm in our line better understands the difficulties which confront you than our firm. In any legitimate way possible to us we want to help you, and see you grow into the prosperity and business success you surely deserve.

I thank you.

The Co-operative Movement.

By N. O. Nelson, of the N. O. Nelson Mfg. Co., in *The Independent*.

THE co-operative movement goes along with increasing momentum the world over. Formerly we heard of little other than the British stores, now it is Denmark which most attracts the writers. Ireland, Germany, France, India, California, Minnesota, have wonderful figures to show.

Co-operation grows because it is profitable, because it brings people into association, because it brings the democratic spirit into business.

In a hard-headed, matter-of-fact way it solves the question of capital and labor by raising the capital among those who want to use it and giving to those who use it all that comes out of its use.

It does not now seem a wonderful discovery that a dividend on purchase should draw trade, yet that is what has made the Rochdale plan famous and unchanged for 67 years. Probably ten millions of heads of families buy their goods or sell their wares and produce on this plan. They buy and sell at market price, and periodically divide the profits in proportion to purchase of goods or sale of produce or wages received.

The 28 Rochdalers of 1844 with their $140 of capital have grown to 2,650,000 members in Great Britain alone, with a capital of $175,000,000, an annual trade of $560,000,000 and divisible profits of over $60,000,000. It should be explained that "trade millions" includes the wholesaling and manufacturing, the profits on which go to the retail stores, making the rate of dividend on the consumers' purchases about 15 per cent.

The co-operative principle has gone far beyond storekeeping. The Rochdale pioneers did in fact project a far-reaching plan. They meant to save the profit on retailing, to make capital for self-employment and to buy land for homes and farming. The principle has been applied on a vast scale to business connected with farming, home-building and borrowing capital for production.

Some 25 years ago the buyers of butter and produce for the British stores found in Denmark indifferent and uncertain quality, and badly packed. They said to the farmers, "form a co-operative society, on your joint responsibility borrow the money to set up a creamery, employ an expert buttermaker and manager and we will pay you several cents a pound more and take all you will make." This worked so well that it made the little kingdom the greatest butter producer in the world.

Working so well in dairying, it was next applied to co-operative slaughter houses, the refuse skim milk being excellent food for pigs. Then came poultry and egg societies, credit societies, supply associations and stores. Four-fifths of the Danes belong to co-operative associations. The productive societies have an export federation which exports annually 65 millions worth of butter, bacon and eggs. This has been done in 25 years.

Twenty-three years ago the movement was brought into rural Ireland, an unpromising field. There are now over 1,050 farmers' co-operative societies, 350 of which are creameries. From being a byword Irish butter is seeking rank with the Danish. Even factory-ridden England has its Agricultural Organization Society.

Germany and Austria were the originators of people's banks or credit societies. There are some 25,000 of them in the two countries. They are local associations, mostly farmers, usually without capital stock, but with unlimited liability. On the ample responsibility of all its members the society receives deposits and loans at low interests and lends to its members on security of fellow-members for profitable productive purposes only. Though the loans amount to hundreds of millions a year, practically no losses occur and the money is freely loaned by large city banks.

Not least important is the Poultry and Egg Society, which has the happy faculty of producing neither rotten nor stale eggs, thereby receiving a preferential price. A route man calls every two or three days, receives and weighs eggs and poultry, carries them to the packing station where they

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are sorted as to color and size, then shipped, and when returns come back the route man makes payment to each on his next round. Each member of the society has a rubber stamp with number and date showing when and by whom eggs were gathered. The rules require that eggs be gathered daily from regular nests only. They must then be fresh and there is a heavy fine for passing on an unsuspecting public a stale egg.

The supply associations buy fertilizers, feed seeds and other large requirements. There are beekeepers' societies, breeding sire syndicates, and finally stores. Most of the countries have wholesale stores owned by the retails.

The English Wholesale does the fabulous business of 130 millions a year, it manufactures a large variety of goods, in value over 30 millions a year, it has its own buyers in all parts of the world, it has tea plantations in Ceylon, elevators in Canada, and buys whole cargoes of currants in Greece. In these foreign affairs it is joined by the Scottish Wholesale.

Many millions have been invested in comfortable houses for members. There are co-operative building societies which take a large suburban tract, lay it out systematically, build and rent to the members, the profit on the rent going as payment on the tenant-members' shares, which eventually own the property—jointly.

The Co-operative Orange Association of California took the industry in a hopelessly demoralized condition a dozen years ago. It now has its own packing houses and inspectors at every station, supplies perfect fruit true to brand, has its own warehouses and salesmen in all the principal cities, keeps the market supplied but not overstocked, warrants the grade and gets a corresponding price. Minnesota and the North Central States have between 1,000 and 2,000 co-operative creameries and hundreds of elevators. Numerous truck associations and stores have been started in all parts of the country, but not many are properly organized or prosperous. They need time and experience.

It is safe to say that there are in the world over 12,000,000 members of bona fide co-operative business associations doing a trade of much above a billion dollars a year, with net profits of over 100 millions. This business bids fair to settle the trust question, the labor question and, in the main, the pauper question, by making a voluntary trust for all the people, by self-employment and by work and fair living for all..

It is democratic by giving an equal vote to every member, equitable by giving all the profit to those who create it. It cultivates fellowship, saves money by economical methods, is strictly honest, having none to cheat but itself, and financially equipped for all legitimate business purposes by capitalizing its profits.

New York State Notes.

THE plumbing and heating contract for the new business which Joseph A. Griffin is to erect in West Onondaga St., Syracuse, N. Y., just east of the Delaware, Lackawanna & Western railroad tracks, have not been let yet.

Harlow A. Olmstead will assume the position as business manager of the Murray Plumbing Co., of Ogdensburg, N. Y.

James B. Randall has taken a contract to install a steam heating plant in the Odd Fellows' building in Main St., at Warwick, N. Y.

The firm of Holm & Odell, which formerly conducted a plumbing business and hardware store at Portchester, N. Y., has been dissolved. Howard Odell still conducts the store occupied formerly by the firm, and Theodore Holm will conduct a store in the same line of business on the opposite side of Purchase St.

W. G. Dawson & Co., of Mount Vernon, N. Y., with a capital stock of $2,000, will conduct a general plumbing business in that city. Directors, William G. and Jennie R. Dawson and Margaret Packman, all of that city.

George H. Cole & Son, of Troy, N. Y., with James W. Donnelly have incorporated under the name of George H. Cole Supply Co., for the sale of wholesale plumbing and stove supplies and will continue the business already established by George H. Cole & Son. Capital, $40,000; offices and warehouse located at 399, 401 and 403 River St.

H. J. McAuley and Edward Rockwell, who conducted the Modern Heating & Plumbing Co., at 29 Elm St., Glens Falls, N. Y., have dissolved partnership, Mr. Rockwell retiring from the firm. The business will be continued in the same shop by Mr. McAuley, who is an expert in his line of work.

George H. Hyde, one of the officers of the Hyde Metal Boat Co., which has maintained a factory in Watertown, N. Y., for some time past, left recently for Chicago, where he will enter the employ of Richardson & Boynton, manufacturers of heating apparatus. He will have the South Chicago district for his territory, and his position is a good one.

A Change in Firm.

DAVIS & DUNLAVEY, the new proprietors of the New Central Hotel, at Olean, N. Y., have disposed of their plumbing business to George Merkel and James Shortell, who will take possession as soon as the inventory of the stock can be completed and will c the business in its present location n the Pennsylvania tracks on North St.

Mr. Merkel and Mr. Shortell ar practical plumbers and there seems no reason why they should not maint business on the same prosperous pl Messrs. Davis & Dunlavey. Mr. has been in the employ of W. H. S for some time past and ever since & Dunlavey opened for business Mr. tell has held a position with them he is familiar with the details of th ness and well acquainted with the

Troy Delegates to New State Convention.

THE Master Plumbers' Associa Troy and vicinity has chos following to attend the Stat vention at Buffalo, March 10-12: De —Arthur A. Dunn, Harry J. Ryan, Kennedy; alternates — Lawrence mara, Jr., Julius H. Pfau, Joseph laney.

City Plumbing Bureau Has est Year Ever.

THE report of William H. White of the bureau of plumbin drainage in the health departm Buffalo, N. Y., was submitted on Jan Health Commissioner Fronczak.

work was done by the bureau last than in former years because of the number of residences and office bui erected.

There were 9,440 plans for dr filed with the bureau, which is 407 than ever before received in one yea report states. Inspectors for the b looked over 27,740 jobs and served notices of defective work. These we corrected.

Gloversville Plumbing Boa

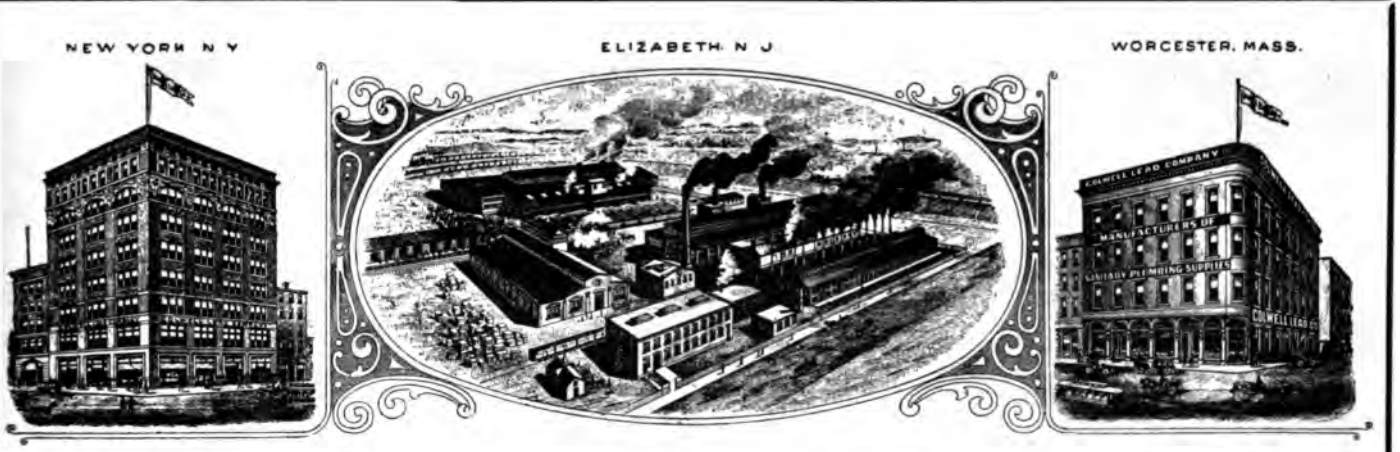
AT a meeting of the plumbing held Jan. 29, the board organiz the coming year. Two new me were admitted to the board, n Harry Brown to succeed Frank S for the unexpired term of the latte resigned to take the position of sa and plumbing inspector of the bo Health; also A. Treher, Jr., to s William Briggs, retired.

The following officers were elect the ensuing year: President, V Vrooman; secretary, A. Treher, Jr.

The board will convene during the ing year on the first Wednesday o month.

Ventilating the Ogdensbu Schools.

THE school authorities of Ogden N. Y., are looking into an e ment in ventilation recently out in Syracuse. This experiment w idea of a physician, who noticed how and bad the air was in school rooms secured permission to put five screens ered with the cheapest unbleached



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cloth in the windows of one room. The screens were made to fit, so that there was no crack or crevice where the wind could get through. The windows were raised high, the only protection from the winds being the cotton cloth screens. Under each window was a radiator, and the cold air coming in mixed with the warm air. The result was very satisfactory and involved no increased expense in coal. The air was good and the room like a day in June.

Convention Dates.

Feb. 26.—Meeting of the Central Supply Association at the Sherman Hotel, Chicago.

March 10, 11 and 12.—Annual convention of the Kansas State Association of Master Plumbers at Kansas City, with headquarters at Hotel Grand.

March 11 and 12.—Annual convention of the New York State Association of Master Plumbers at Buffalo, with headquarters at Hotel Iroquois.

March 18 and 19.—Annual convention of the Michigan State Association of Master Plumbers, at Saginaw, Mich. The convention will be held in the Auditorium.

March 18 and 19.—Quarterly meeting of the National Association Brass Manufacturers at St. Louis, Mo.

April 14.—Annual convention of the Arkansas State Association of Master Plumbers at Rogers, Ark.

April 14 and 15.—Annual meeting of the National Pipe and Supplies Association at Chicago, Ill.

April 15 and 16.—Annual convention of the Pennsylvania State Association of Master Plumbers, at Pittsburgh, Pa.

May 20, 21 and 22.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky.

May 27, 28 and 29.—The fifth annual convention of the National District Heating Association, at Indianapolis, Ind.

June 17, 18 and 19.—Annual convention of the National Association of Master Plumbers at Philadelphia, with headquarters at the Bellevue-Stratford Hotel.

June 23, 24 and 25.—Annual meeting of the National Association of Master Steam and Hot Water Fitters, at Niagara Falls, N. Y. The secretary of the association is Henry B. Gombers, 260 West Broadway, New York City.

Job Ticket

Work..... Job No.....

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Plumbing, Gas Fitting, Steam and Hot Water Heating
1737 FILBERT STREET
Philadelphia,.....

Owner..... Address.....
Tenant..... Address.....

Order.....

Description of Work Done.....

MATERIAL

Expense.....
Plumber.....Time.....Day.....Hours.....
Helper..... " ..... " ..... " .....
Laborer..... " ..... " ..... " .....
State of job at this date.....
Signed.....

Plumbers' Job Tickets

Do your workmen wait until the end of the week and charge up the whole week's work at one time?

Or do you use *our* Plumbers' Job Tickets, designed by our Mr. Fink, which compel the workmen to charge up daily all the time and material used on jobbing work?

Our Plumbers' Job Tickets, size 6"x9"
with your name and address
500 for $2.00 2000 for $4.50
1000 for $2.75 5000 for $9.00

Our Plumbers' Duplicate Order Books
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44 N. Fourth Street PHILADELPHIA, PA.

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Twenty-seventh Paper

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RULE 115. Safe and refrigerator waste pipes must be of galvanized iron, and be not less than 1¼ inches in diameter nor larger than 1½ inches in diameter, with pipe branches at least one inch in diameter, with strainers over each inlet.

Plate 121 illustrates the general method of installing a refrigerator waste system, the piping of which, either of wrought iron or steel, must be galvanized.

On this plate (121) we show only one refrigerator, which we think is sufficient to present very clearly the method of installation.

As indicated on the diagram the refrigerator—either stationery or portable—is, for convenience, shown on the first floor.

The same general piping system as shown, relative to refrigerator safe wastes, applies to one or more refrigerator safe waste inlets.

In apartment or tenement buildings you will find without much deviation that the living quarters on the first floor correspond with those on the floors above.

Architects generally adhere to this rule, on account of the small ground area, upon which is constructed the building for living purposes, and the value of the property is such that we must, to get a reasonable income, after deducting taxes and untold assessments, build up story upon story until we are quite sure of our investment and the proceeds therefrom.

This arrangement of the kind of building we are on the subject of makes it practical and very easy to install our pipe lines, especially the refrigerator safe main waste line.

By referring to the illustration (Plate 121) you will see that the main refrigerator safe waste line is 1½ inches in diameter—the maximum size pipe for this kind of a waste line, and that the branch to the main safe waste directly under refrigerator, one inch in diameter, the minimum size of pipe allowed for branches.

If the apartment or tenement building were of six stories and in each living apartment were installed a refrigerator, the safe wastse would all be connected to main refrigerator waste line, similarly as shown on Plate 121.

The main waste should be kept close to the refrigerators so that the one-inch branch waste will have as little horizontal run as possible before discharging into main line.

Rule 116. Safe and refrigerator waste pipes shall not be trapped. They must discharge over a properly water supplied, trapped and vented sink, publicly placed, not more than four feet above the floors. In no case shall any refrigerator or safe waste pipe discharge over a sink located in a room used for living purposes.

By referring to Plate 121 you will see that the main waste pipe is not trapped before discharging its contents into publicly placed sink, which is directly connected to plumbing system and is trapped, vented and water supplied in the usual manner.

Having no trap at the base of main refrigerator waste line nor on the one-inch branches to safes there is no opportunity for the accumulation of dust, sweepings, etc. There is such a small quantity of water that passes through these pipes, a clear, unmolested system is desired.

Traps would, of course, catch the dirt and with the small quantity of water form a mud or sediment which would stick to the trap, and we would have no drainage at all.

Neither is there any flop valve connected to the base of main line, as they frequently fail to move or become rusted and adhere to the pipe—again causing a blockade in the system.

Rule 117. The branches on vertical lines must be made by Y or T-Y fittings and carried up to the safe with as much pitch as possible. On the main refrigerator waist line, the fitting receiving the one-inch branch connection from safe, is a T-Y fitting, as called for in the above rule.

This fitting on the main line allows the waste water from above to pass through and on down this main refrigerator waste line without passing through

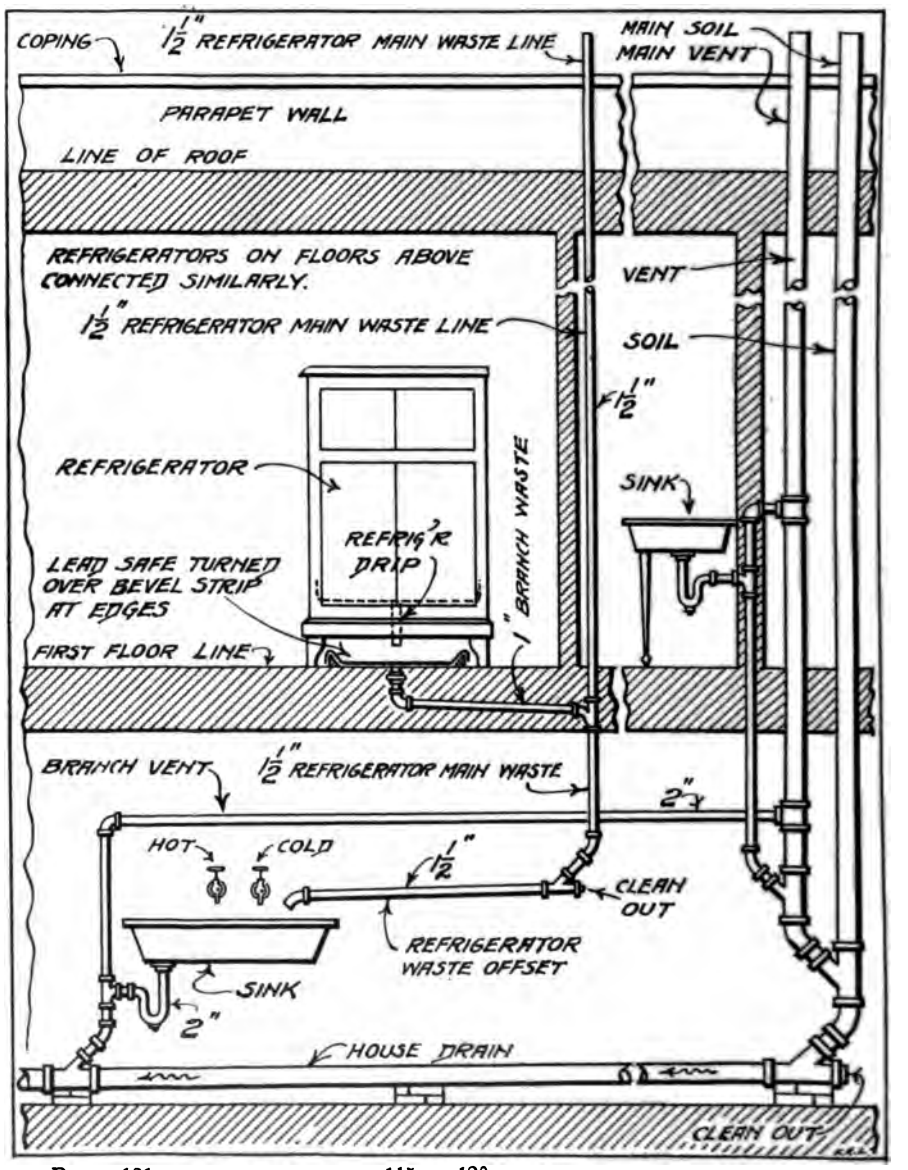

PLATE 121—ILLUSTRATING RULES 115 TO 120, SAFE AND REFRIGERATOR WASTE PIPES.

Approved by the Philadelphia Board of Health

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Anti = Freezing, Low Down Combination

(Plate 4 I X L Patent Applied for.) TRADE MARK I X L

The "I X L" Anti-Freezing Closet can be installed very quickly, it is simple, not complicated, nothing inside of tank but the stand pipe, gives no trouble, is cheaper, infringes no patents. Can as much be said for others?

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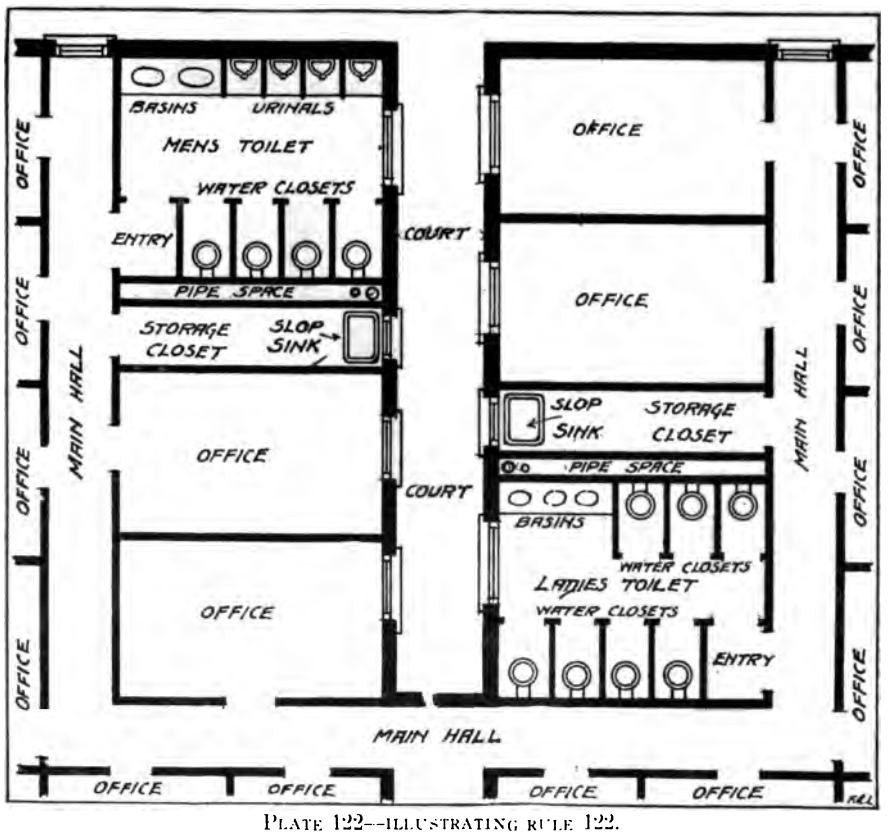

PLATE 122—ILLUSTRATING RULE 122.

any of the one-inch branch wastes to safes directly under refrigerators. This same fitting was shown in the last issue of the MERCHANT PLUMBER AND FITTER, in illustrating Rule 114 pertaining to directly connected drinking fountains.

The pitch or grade of the branches to main refrigerator waste line should be as great as the construction of the building (or floors) will permit.

If we have a good fall on branches from safes to main waste line, there is little chance for the accumulation of sediment which is most profuse when refrigerators are improperly cared for by the one under whose jurisdiction this falls to. And right here we might state again that refrigerators —speaking broadly—are not given "cleanly" attention. It is only necessary for us to call some evening on a "couple" of our many acquaintances and when the light lunch is passed around (I, myself, prefer to sit at a table) and the last or only course is Roquefort, we find it flavored with from one to a dozen hybernating "left overs," crying loudly for the department of health.

Rule 118. Lead safes must be graded and neatly turned over beveled strips at their edges.

Looking at Plate 121, under the refrigerator, we are shown the lead safe as called for under the above rule, 118. Good, heavy sheet lead is more economical in the end and its use should be insisted upon. It also makes a better and lasting joint where the strainer is fitted over the connection to the branch waste. The beveled strips surrounding the lead safe are shown extending about two inches above the floor and the sheet lead turned over its edges. This is 300 per cent. better than an imitation affair, whose edges rise about one-half inch and would not allow a pail of water to be emptied into it for flushing purposes without slightly flooding the surrounding floor.

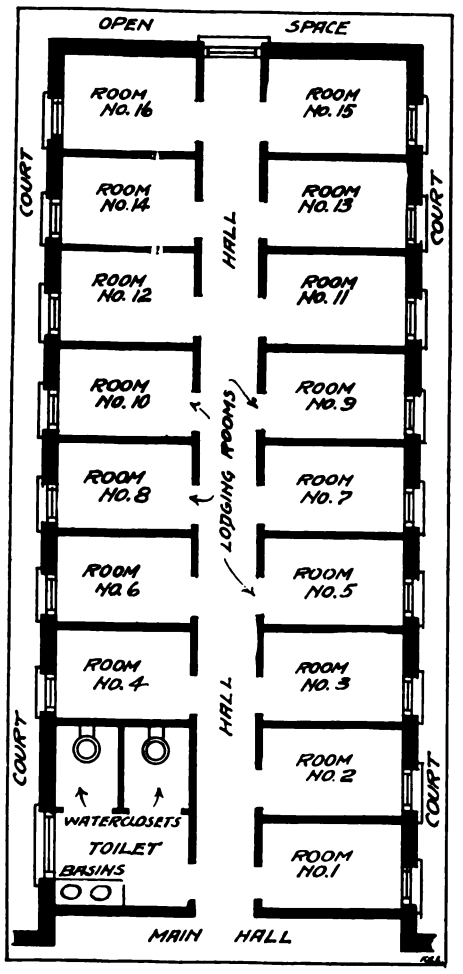

PLATE 123—ILLUSTRATING RULE 123.

Rule 119. Where there is an offset on a refrigerator waste pipe in the cellar, there must be cleanouts to control the horizontal part of the pipe.

Plate 121 shows an offset, as noted on illustration, running from the base of the main perpendicular refrigerator waste line where cleanout is indicated to publicly located, water supplied, directly connecting sink. This sink, of course, is placed in the basement and is not used by the janitor's household, which is on the first floor. The top of the sink should not be more than four feet from the cellar grade, one reason for which is that on a long horizontal offset run we might be too high to receive the discharge from the main refrigerator waste.

Rule 120. In all lodgings and tenement houses the safe and refrigerator waste pipes must extend above roofs.

Assuming that this illustration pertains to tenements and apartments, we have extended the refrigerator main waste pipe above coping of roof, as required in the above rule. And right here let us be careful that near the outlet of refrigerator waste line above the roof there is no soil or directly connected main waste line in too close proximity.

We are well aware—or should be—of back or down draughts, which are frequently created by the peculiar atmospheric conditions prevailing daily, and not only here in the greatest city of the world, but in every part of the universe, even where they haven't sanitary plumbing.

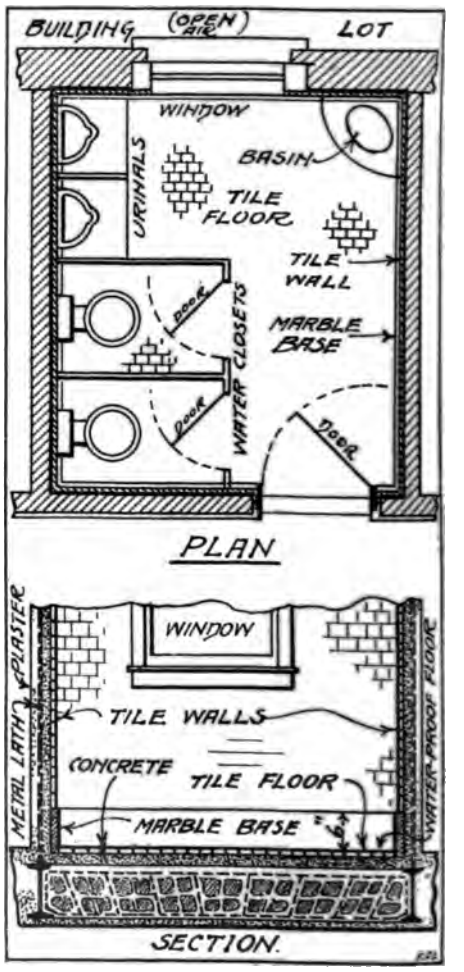

PLATE 124 — ILLUSTRATING RULES 121 AND 125.

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H-O is the cheapest pipe joint cement on the market, because it is sold in powdered form instead of ready-mixed. You furnish the water for mixing instead of paying 10 to 15 cents a pound for it. A pound of H-O will, therefore, go four times as far as a pound of ordinary cement, yet it costs no more. As you mix it as needed there is none wasted by drying out.

H-O Pipe Joint Cement

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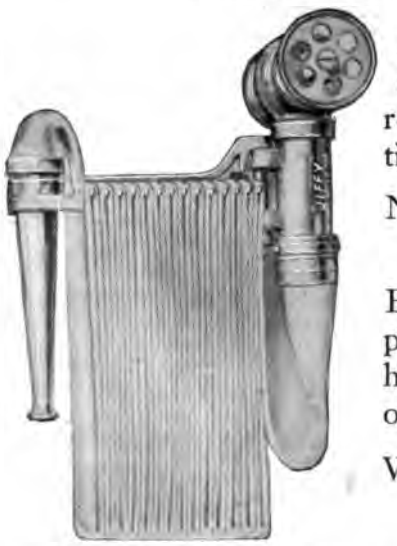

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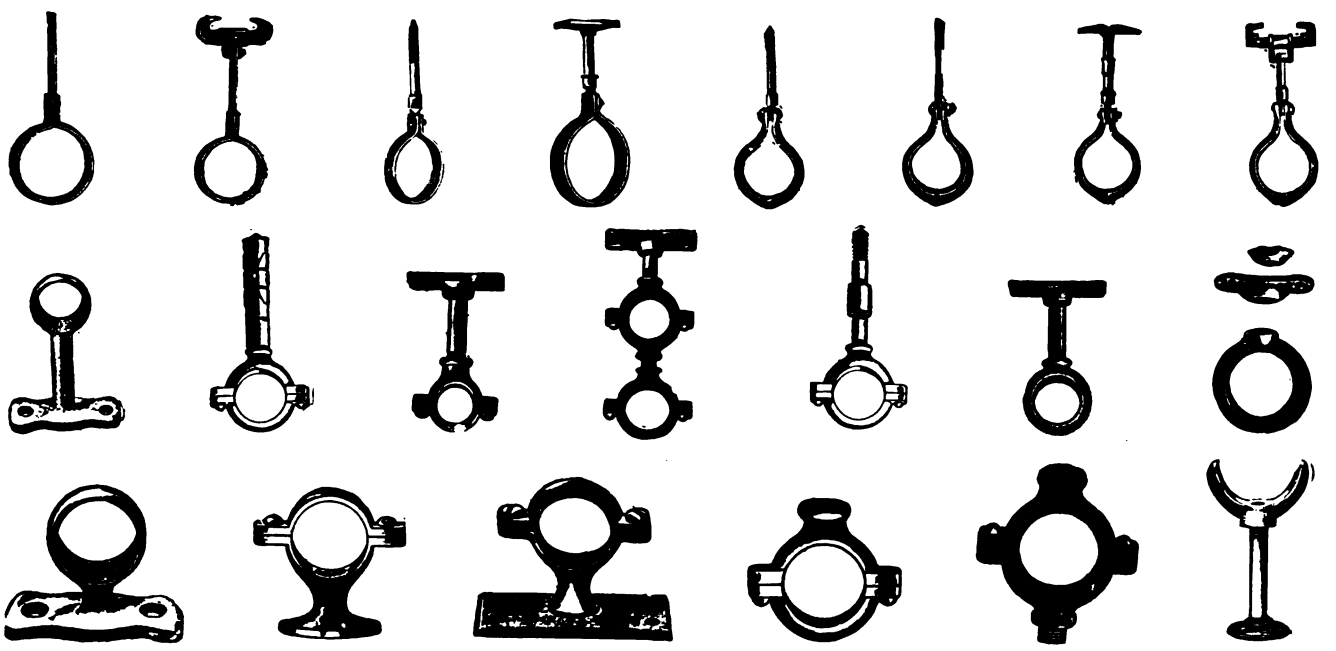

Rule 121. In all buildings occupied as stores, dwellings, lodging or boarding houses, hotels, offices, lofts, workshops, factories or storage houses, there must be at least one water closet in each building. There must be sufficient water closets so that there will never be more than 15

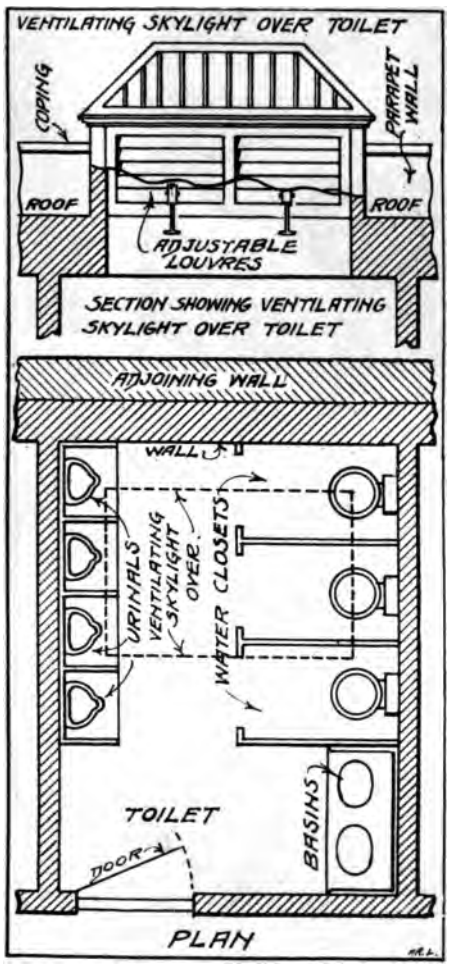

PLATE 125—ILLUSTRATING RULE 125.

persons to each water closet. In places of public assembly the number of toilets and the most available location are to be determined by the Superintendent of Buildings.

In designing any of the above buildings, the architect or engineer should provide several more water-closets than called for in the above rule, and especially so in regard to buildings of public assembly. The location should be carefully considered so that the toilets will not only be convenient but also far enough away from office and assembly rooms, making them unnoticeable.

Rule 122. Separate water closets and toilet rooms must be provided for each sex in buildings used as workshops, lofts, offices, buildings, factories, hotels, and all places of public assembly.

For illustrative purposes, we present Plate 122, which is a part plant of all of the floors of a modern office building. You will notice that the ladies' toilet and men's toilet are located in different wings of the building and also face different sections of the airshaft or court. This arrangement also applies to buildings for other purposes, as noted in the above rule.

Rule 123. In lodging houses there must be one water closet on each floor, and where there are more than 15 persons on any floor there must be an additional water closet on that floor for every 15 additional persons or fraction thereof.

Plate 123 illustrates this rule, it represents one extension of a lodging house, with each room having a window to the outside atmosphere. We show 16 rooms on this floor and, according to the above rule, two water closets are necessary—assuming that one individual occupies one room.

Rule 124. In tenement houses, lodging houses, factories, workshops, and all public buildings, the entire water closet apartment and side walls to a height of six inches from the floor, except at the door, must be made waterproof with asphalt, cement, tile, metal or other waterproof material, as approved by the Superintendent of Buildings.

The illustration, Plate 124, shows the watercloset apartment as required above. The top sketch is the plan showing the tile floor, walls and the fixtures.

The bottom sketch is a section of the floor and walls of the watercloset compartments, omitting the fixtures to show plainly the construction. You will notice that this form of construction is not only waterproof but fireproof as well.

Rule 125. In all buildings the water closet and urinal apartments must be ventilated to the outer air by windows opening on the same lot as the building is situated on, or by a ventilating skylight placed over each room or apratment wherein such fixtures are located.

Plate 124, showing waterproof floors, also shows the watercloset and urinal apartment ventilated by window opening on court. Where this arrangement is impossible we must ventilate by means of skylight shown on Plate 125.

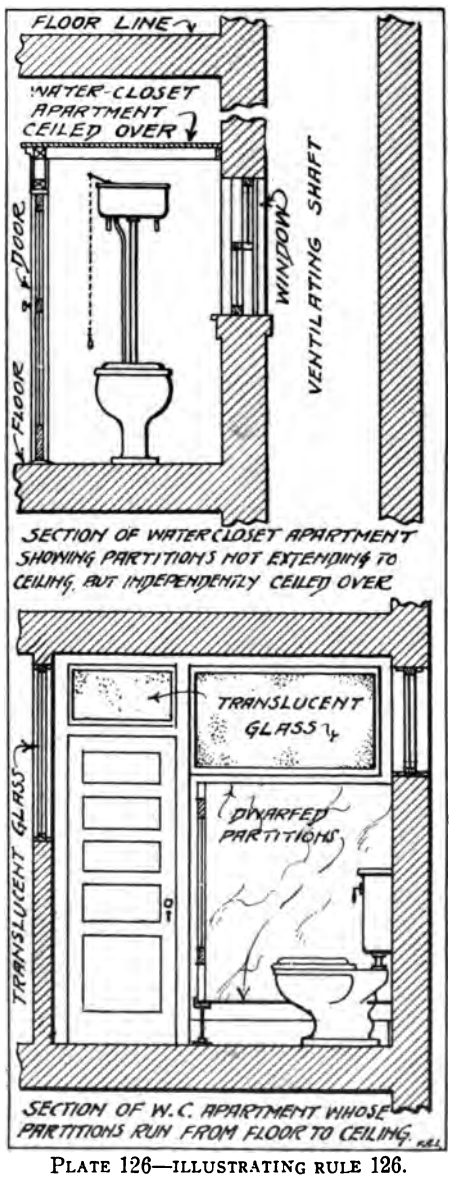

PLATE 126—ILLUSTRATING RULE 126.

Rule 126. In all buildings the outside partition of any water closet or urinal apartment must be air tight and extend to the ceiling or independently ceiled over. When necessary to properly light such apartments, the upper part of partitions must be provided with translucent glass. The interior partitions of such apartments may be drawfed partitions.

Plate 126 is an illustration of this rule, the lower sketch or section showing the outside watercloset apartment walls extending from floor to ceiling. As the window to shaft or court is rather small or great distance from the top of shaft would not receive much light, consequently we have placed in the upper part of partitions, translucent glass to add more light to the apartment. Notice the inside partition surrounding watercloset.

This partition must be dwarfed as indicated.

The top sketch, same plate, 126, is of watercloset apartment whose outside walls do not extend up to ceiling—assuming that the height of story is much greater than usual—but extend to a convenient height and the apartment ceiled over as shown. This apartment having sufficient light translucent glass is unnecessary.

California State Association Will Meet at Santa Barbara.

THE master plumbers of California will meet in Santa Barbara June 16, 17 and 18 for their annual convention. The association decided upon Santa Barbara for a convention city without any formal invitation and without asking any bonus to help defray expenses. Thomas Haverty, president, and Clarence L. Crowell, secretary of the association, both of Los Angeles, have already made arrangements at the Potter for the use of the hotel ball room for the sessions of the master plumbers and for the accommodation of 500 expected delegates and their wives.

The master plumbers of that city will now enlist the aid of the Chamber of Commerce and other public bodies and plan royal entertainment for the visiting plumber, notwithstanding the fact that they come unasked.

Syracuse Delegates to the New York State Convention.

THE following delegates and alternates were elected Tuesday evening Feb. 11, by the Master Plumbers Association of Syracuse, N. Y., to represent them at the State convention to be held at Buffalo, N. Y., March 11-12:

Delegates—August Schall, Rhoda M. Graw, E. B. Dunkerton, M. F. Burke, X. Donovan, P. F. McDonald, Wm. Dreller, I. G. Ward. Alternates—A. M. Vadenburgh, Chas. A. H. Kienzle, F. M. Soper, E. J. McCarthy, J. J. Reidy, Jo Oswald, E. G. Houde.

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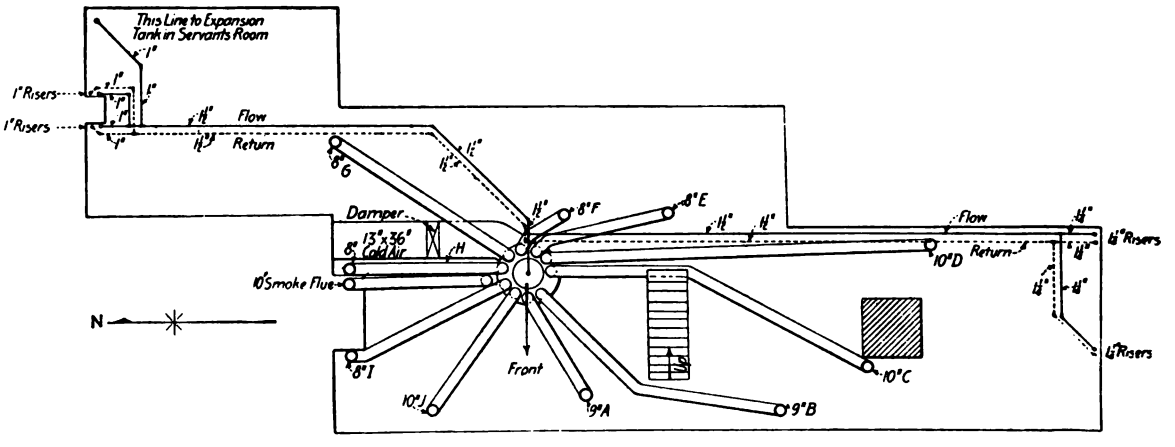
MERCHANT PLUMBER and FITTER PUBLISHING CO., 200 Fifth Avenue, New York

An Analysis of a Combination Heating System.

By FRANK H. CHEW.

Read Before the American Society of Heating and Ventilating Engineers

THERE should be found in the publications of the society records of all methods of heating and ventilating buildings, particularly those used for homes, and it is the object of this paper to fill one vacancy by giving an analysis of the combination system, using both warm air and hot water for ventilating and warming. The building has open fireplaces, a provision which can be widely recommended as a valuable auxiliary to both ventilation and heating. The accompanying plans give the arrangement of the building, which is a farm house, remodeled to serve as a summer residence, but provided with apparatus, as indicated on the plans, to make it comfortable at all seasons of the year. It will be noted that Chamber A, at the south on the second floor, is over an open porch, and is provided with two radiators, and that the servants' chambers, over the kitchen on the extreme north, also have radiators, and all are generous in the surface apportioned to the work to be done. The accompanying table gives the dimensions of the various rooms, with their contents, wall exposure, glass surface, equivalent glass surface, diameter, and area of warm pipe, radiator surface to space heated, and the equivalent glass surface. The pipes leading to the different rooms bear letters corresponding to those given in the table. For the pipes in the table marked with an asterisk, the general proportions have not been figured.



CELLAR PLAN OF THE RESIDENCE.

The apparatus has been subjected to the test of actual use, and the bill has been paid, so there is the usual evidence that the judgment of the engineer was correct and the service satisfactory.

The heat required is furnished by a warm-air furnace in the combustion chamber of which, about six inches above the fire, is suspended a hollow disk water heater. The furnace is a No. 158 Crusader, with a 58-inch galvanized casing insulated with asbestos proper and an inner lining of corrugated bright tin. It has a so-called square fire pot, 20 inches square inside at the bottom and 31 inches in inside diameter at the top, and 14 inches deep from the grate to the bottom of the feed chute. The grate is of the triangular bar type, setting one inch below the bottom line of the fire pot, to give free entrance to the air and allow the ashes to fall away freely. The bars of the grates may be operated independently and clear the fire pot, so that there are no dead corners or ash accumulation which is calculated to reduce the heat transmission from the fire pot. In addition to the provision for admission of air to the fire, there is a 40 per cent. free air space through the grate.

Above the fire pot, which is corrugated to increase the heating surface, there is a corrugated combustion chamber, 31 inches in diameter at the bottom, and extending upward 13 inches to a central combustion dome 21 inches in diameter, and standing 16 inches high, with a 20-inch diameter at the top, or just enough taper to draw from the sand in the molding. A flue leads from this combustion dome to an annular steel

will be noted that it is the reverse of compact, being extended, and putting the maximum load on any system of heating. To buildings of this type, the combination system is peculiarly adaptable, for when the air supply is taken from out of doors, a superabundance of fresh warm air is furnished, and the hot water circulates through radiators in the more distant and exposed parts.

The table shows that the space heated amounts to 22,057 cubic feet, and that the exposure amounts to 1,212 square feet, of equivalent glass surface. The building is of frame construction, of the type for which the heating contractor provides apparatus with wonderful accuracy as regards heating capacity, and without laborious calculations, employing the expert knowledge gained in and sharpened by in-

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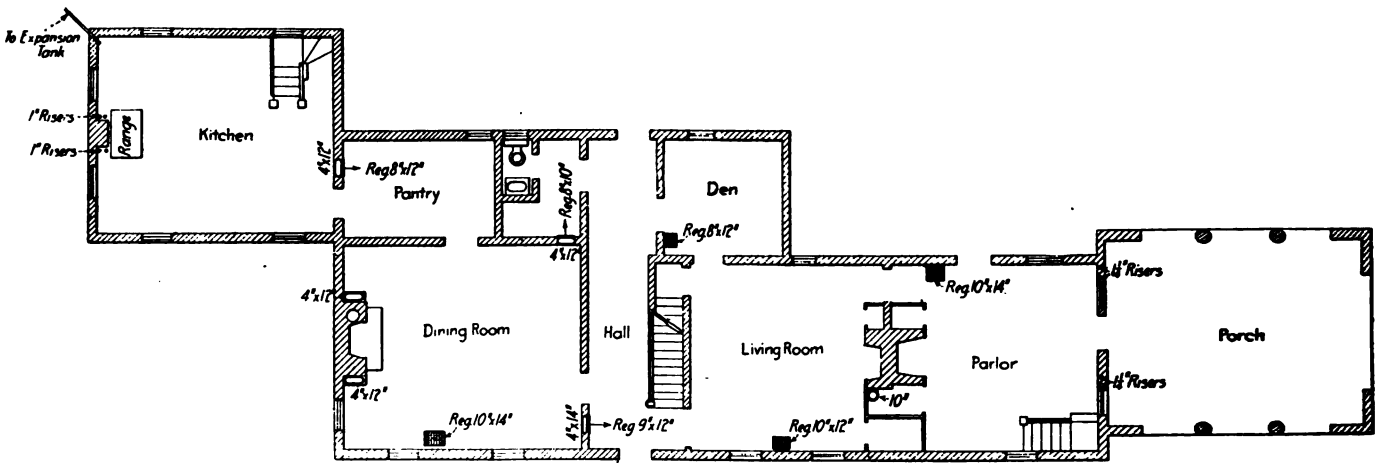
drum, or radiator, 16 inches high, the inner wall of which is curved to a 36-inch diameter circle, and the outer wall to a 48-inch diameter. There is a vertical portion in this drum, so that the products of combustion must make a complete circuit of the flue, which is six inches wide and 16 inches high, to reach the nine-inch smoke pipe. An approximation of the surface exposed in the furnace is given in the accompanying table:

Square fire pot	9	sq. ft.
Combustion chamber	11	sq. ft.
Combustion dome	4.1	sq. ft.
Combustion dome head	2.2	sq. ft.
Inner drum	12.5	sq. ft.
Outer drum	17.4	sq. ft.
Top drumhead	5.5	sq. ft.
Bottom drumhead	5.5	sq. ft.
	67.2	sq. ft.
Feed chute, smoke collar, etc.	2.8	sq. ft.
	70.0	sq. ft.

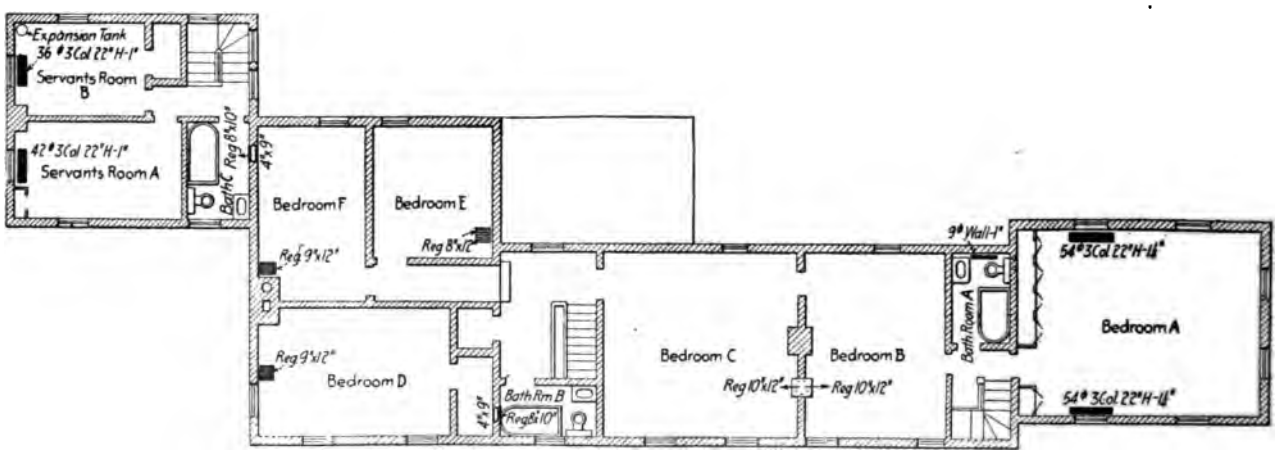
The last addition has been made for ready calculation, making the surface 70 square feet, and it is quite probable that careful measurement would discover that effective heating is exposed to the extent of 70 square feet, even if the surface of the drum head, and the combustion dome head were omitted from the table. The furnace has the Boynton check damper, and has an ashpit damper adapted for connection with it in a thermostatic draft control system. The grate has an area of 2.8 square feet. The square fire pot has a capacity of 4.6 cubic feet, and for 248 pounds of coal, assuming a cubic foot of anthracite coal weighs 54 pounds. Assuming a charge of 248 pounds would last eight hours, with 20 per cent. to rekindle another charge, about 25 pounds per hour would be available; and, assuming 8,000 B.t.u. would be available for heating in the construction described, the heater would provide 200,000 B.t.u. per hour. This would mean, with a grate of 2.8 square feet, a consumption of about nine pounds of coal per hour. The furnace is connected by means of a nine-inch galvanized iron smoke pipe, with a 10-inch inside diameter tile flue, in a chimney that is about 30 feet high to the top. This is the heat-producing equipment.



FIRST FLOOR PLAN OF THE RESIDENCE.

The work to be done may be calculated from the table. The portion warmed by the radiators contains 4,166 cubic feet, and exposes 344 square feet of equivalent glass surface. It is assumed that each square foot of E. G. S. loses 85 B.t.u. per hour, when an indoor temperature of 70 degrees is maintained, with an outdoor temperature of zero. Hence, 344×85=29,240. It is assumed that there will be one air change per hour, and that the air must be raised from zero to 70 degrees, and as one B.t.u. will raise 55 cubic feet of air one degree, the heat required will be 4,166÷55=75.74, and 75.74×70=5,302 B.t.u. The total heat that must be supplied by the water radiators is 29,220+5,302=34,522 B.t.u.

The water heater exposes 5.5 square feet; and 34,522÷5.5=6,276 B.t.u. must be absorbed per square foot per hour from the fire and transmitted to the water circulating through the heater. There are 195 square feet radiation and 34,522÷195=177 B.t.u. which would have to be given off per hour by each square foot of radiation with these heat requirements, and not allowing for surface in exposed piping. If no change of air is figured, the calculation would be 29,220÷195= practically 150 B.t.u. per hour per square foot of radiation.



SECOND FLOOR PLAN OF THE RESIDENCE.

The portion of the house warmed by warm air contains 17,891 cubic feet, and exposes 874 square feet E. G. S. The heat loss is 874×85=74,290 B.t.u. per hour, and must be offset by the heat brought in by the warm air. Assuming the air enters at a temperature of 140 degrees and escapes at a temperature of 70 degrees, the amount of air necessary to offset the heat loss is calculated thus: For every time the air is changed, the 17,891 cubic feet will give up in cooling one degree, 17,891÷55=325 B.t.u. As the air cools 70 degrees, the total amount of heat given up for each air change is 325×70=22,750 B.t.u. As the total room heat requirements is 74,290 B.t.u., there must be 74,290÷22,750=3.26 changes per hour. This means that the total air delivery is 17,891×3.6=58,325 cubic feet per hour.

All the air brought in, however, must be raised by the furnace from zero to 140 degrees, and hence the furnace must provide about twice the amount required to offset

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heat losses through walls and windows, or 148,580 B.t.u. for heating the air in addition to the 34,522 B.t.u. required for the hot water radiation system, or a total of 183,100 B.t.u. per hour. Assuming 8,000 B.t.u. are utilized from each pound of coal burned, 183,100÷8,000=22.8 pounds of coal per hour would be required, with a grate area of 2.8 square feet. 22.85÷2.8=8 pounds of coal per square feet of grate per hour would be the rate of combustion, not difficult of attainment in the construction and the chimney provided. This is assuming an outdoor temperature of zero, that seldom occurs and is only of short duration. The coal consumption on Long Island may be calculated closely as follows, assuming that heat will be required 200 days: 200×24=4,800 hours and 4 800 ×22.85=109,680 pounds of coal, and 109,680÷2,240=49 tons that would be required if zero temperature prevailed for 200 days, but it has been found from the records of heating plants of different types that one-third of the amount required for 200 zero days, or, in this instance, 16⅓ tons, should be sufficient. It is regretted that the actual consumption in this plant is not available, as the house is not open during the entire winter.

It has been shown that 3¼ air changes per hour are necessary for heating a portion of the house containing 17,891 cubic feet, or about 58,300 cubic feet of air per hour would enter the building through the furnace pipes, which have a combined area of 600 square inches, or 4.16 square feet. The volume per second is 58,300÷3,600= 16.19 cubic feet per second, and 16.19÷ 4.16 (square feet) =3.89, the average velocity in feet per second, which is practicable. The velocities in the different pipes must vary with the conditions of room size, exposure and ventilation, and size, length and direction of the pipe. A 10-inch pipe, having an area of 78 square inches or 0.54 square feet, runs to the parlor, which has 2,100 cubic feet of space and 142 square feet of E. G. S. The heat loss will be 142 ×85, or 12,070 B.t.u. To raise the temperature of 2,100 feet of air 140 degrees requires 2,100×140÷55=5,350 B.t.u.; but, as one-half of the heat is lost by the air escaping by ventilation, 5,350÷2=2,675 B.t.u. per hour available to offset that loss. The air change to supply the heat is 12,070÷ 2,675=4.5 air changes. To change 2,100 cubic feet of air 4.5 times per hour requires the movement of 2,100×4.5, or 9,450 cubic feet. The number of cubic feet of air per second is 9,450÷3,600=2,62 cubic feet. The necessary velocity in the 10-inch pipe, with an area of 0.54 square feet is 2.62÷0.54, or 4.8 feet per second.

	Contents, cubic feet.	Wall surface, square feet.	Glass surface, square feet.	E. G. S., square feet.	Warm air pipe, area, square inches.	Warm air pipe area to space warmed.	Radiation, square feet.
Parlor	15x16-6x8-6	2,100	388	45	142	D-78	1:27	....
Living room	15x15-6x8-6	1,980	166	38	79	B-63	1:31	....
Dining room	16-6x19x8-6	2,650	293	38	111	J-78	1:34	....
Toilet	6x8x8-6	404	43	8	19	P*-50	....	....
Pantry	8x12x8-6	816	90	12	34	G*-50	1:16	....
Den	9x9-6x8-6	726	157	13	52	E-50	1:14	....
Hall	5x25x17	2,125	136	30	64	A*-63	....	....
Bedroom A	15x19x8	2,280	373	75	198	....	....	108
Bathroom A	5x7-6x8	300	28	10	17	....	....	9
Bedroom B	15x11-6x8	1,380	146	38	74			
Bedroom C	15x16x8	1,920	218	38	92	C-78	1:42	....
Bathroom B	5x8x8	320	51	13	26	A*	....	....
Bedroom D	10-6x15-6x8	1,302	178	38	82	I-50	1:26	....
Bedroom E	10x10-6x8	840	155	13	52	F*	....	....
Bedroom F	9x14x8	1,008	59	13	28	H-50	....	....
Bathroom C	5x8x8	320	28	12	19	G*	....	....
Servants' chamber A.	8x14x8	896	159	25	72	....	....	42
Cervants' chamber B.	7-6x11-6x8	690	135	25	57	....	....	36
Total		22,057			1,218	600		195

The dining-room has a shorter pipe, with 0.54 square feet area, and contains a space of 2,650 cubic feet, and has an exposure of 111 square feet. E. G. S. The

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heat loss is 111×85=9,435 B.t.u. In a similar way it may be shown that 2.8 air changes per hour are necessary for heating purposes. The corresponding velocity of air in the pipe is 2,650×2.8÷3,600÷0.54= 3.8 feet per second.

An important feature of the equipment is the use of a 10-inch round riser for heating bedrooms B and C on the second floor. By the same method of calculation it is found that a velocity of 5.5 feet per second will be necessary to bring in enough air at 140 degrees to offset the heat losses. In this round riser is an example worthy of being supported by all engineers, as compared with the flat riser in a partition between studding. It has a larger area, less friction, and a much larger air carrying capacity than the flat riser. Another good feature is the use of the double base-board register, which has an opening 8½ x 12 inches, into which the 10-inch pipe discharges.

The air supply to the furnace is taken from the north, the source of prevailing winds, and is through a duct 13 x 36 inches in size, having an area of 468 square inches. The statement was made that the system would provide a superabundance of fresh warm air. It is well to point out that the heat losses, as figured by the total E. G. S., amounts to 103,020 B.t.u. per hour, and that 79,592 B.t.u. per hour are lost the air changes or the ventilation t tended the use of an indirect syst heating. If the estimated 16 tons are required for heating this hom clear that probably six tons are r for the ventilation.

Little has been said about the pipi warm air or hot water, as the pla table will give information which t dent may desire. Both systems of have a gradual pitch and are insulate air-cell covering. Bright tin is used furnace pipe. The expansion tank f water system is in the servants' c B.

Admiration for Superb Qualities of National Presidei Frank J. Fee Expressed at Complimentary Dinner.

JUST as long as he lives there will remain in the memory of our esteemed national president, Frank J. Fee, the recognition which was riotously meted to him on the evening of Feb. 20, 1913, by his confreres and friends at the Hotel Knickerbocker, New York. His painstaking, unselfish and successful work in behalf of his beloved association, its every branch in fact, led the Manhattan master plumbers to extend a banquet to their brother.

The committee in charge of the undertaking was composed of James P. Knight, Jere L. Murphy and I. J. Brown. Covers were laid in the large banquet hall of this beautiful hotel for 200 persons, and every seat was occupied when the diners were requested to take their chairs by Toastmaster Knight.

Upon the dais were recognized former National President John Byrns, the grand old man of the organization, who 26 years ago was elevated from the ranks to the presidency of the national organization, the only time in its history that an event of this kind took place; A. Selden Walker, from East Orange, N. J., the favored son of the Garden State, and former National President Walter D. Nolan, Washington, D. C., a distinguished former national president, who is as popular in New York as when at home in his own local; William Young, one of the founders of the national association, and as attentive today in his 77th year, as when he was an enthusiast some 35 years ago in association work. In Mr. Young's case it might well be said that "they may die but they never resign."

John J. Hannegan, secretary of the New York State association, and president of the Manhattan local, a distinction unique in organization annals, also occupied a prominent position upon the dais alongside of his friend, the evening's distinguished guest, National President Frank J. Fee

James Muir, a noble veteran of the sanitary brigade, and a lifelong member of the order, regretted his enforced absence in a felicitous communication. C. C. Hale, secretary of Peck Bro. & Co., likewise expressed his compliments in a telegram regretting that distance precluded his being present to assist in celebrating the occasion. A telegram from National Director James Smyth, Spokane, Wash., who was a s mate of President Fee before they to the burdens of citizenship and pros in this country, expressed his senti for the distinguished guest of the even

FRANK J. FEE, NEW YORK.
President of the National Association of Master Plumbers.

Boniface Regan had instructed the to include in his menu, specially prep for the occasion, such elements as with

as are they to us when considering their pursuits.

Mr. Knight discussed the advancement of the plumbing craft since the organization of the Master Plumbers' Association, without which there would be little satisfaction for the manufacturer, jobber or plumber himself. He spoke of the excellent spirit of loyalty which pervaded the entire fabric of the organization. No matter how great or able the national president might be, and we acknowledge to him the possession of rare talents, his efforts would go for nil without the support and loyalty of his fellow members. Mr. Knight concluded his opening talk by expressing the hope that all those present would have a good time. He also stated that if the banquet developed into a success credit and praise should be offered Jere L. Murphy and himself, while if a failure was scored the blame was to rest solely upon the head and shoulders of I. J. Brown. This witty sally, and many others, which were secreted throughout Mr. Knight's introductory met with ready response at the hands of the banqueters.

National President Frank Fee was metaphorically led into the arena to a riot of applause. The band struck up "A Jolly Good Fellow," which happy tune was sung again and again. When the rather tired guests took their chairs after waving napkins in the air, and filling every nook and corner of the immense room with vocalics of volume and rarity, Harry Hemlin proposed three cheers for Frank J. Fee. These were given with great gusto and undoubtedly the reverberations crept out on to the Great White Way, and perhaps occasioned the proletariat to imagine that something was really doing in the Regan hostelry.

Blushing becomingly, Mr. Fee stated that he could not at the time think of words to express his deep and heartfelt gratitude for this ennobling reception. Never in his life did he receive such homage, and if stripped of all his worldly possessions he would consider himself a rich man if the expressions of friendship and good will, so evident at the festive board, would last through his lifetime. Cries of "it will" reached his ears and momentarily interrupted his speech. The familiar faces and the brightness of the scene made this the happiest hour of his life. He spoke of the not many years ago when he came to the United States with nothing as an asset but health, and briefly referred to the vicissitudes of his early career in the plumbing profession.

He spoke of the exalted position of the national office, to which he recognized that this honor was being paid more especially than to the man. He was not lacking in appreciation, but he modestly remarked that there had been nothing done by him which merited this ovation. The duties were lighter than the lay member of the organization imagined, due to the unflagging energy and free co-operation of his fellow directors. In selecting his cabinet he said he did not lose sight of the fact that the members upon the board had faithfully served their alma mater for many years, and after such signal and remarkable work, so ably performed, considering the time the office takes from one's personal business, he selected younger men, in the hope that the older generals might by attending more closely to their own affairs recoup in a measure the losses which their respective businesses necessarily sustained through the arduous and conscientious performance of duty so cheerfully rendered in behalf of the national organization. As an instance of the co-operation of members of his cabinet President Fee remarked the occasion of a visit to Washington, D. C., upon a matter of moment. He considered it wise to be accompanied by five members of his staff. He communicated with them, and asked them to hold themselves in abeyance for instructions from the national office as to what day to appear at the National Capital. The communications were sent out, and almost to the minute the five gentlemen requested to be in the national president's company upon the occasion in question responded. The Secretary of the Interior and the Secretary of the Treasury were interviewed, and successfully so. Correction of the abuse in question was promised, and Mr. Fee stated that the interviews were among the pleasantest he had held since assuming the reigns of government last July in Salt Lake City, Utah.

A rare tribute was paid two of Manhattan's favorite sons—National Secretary Charles Murphy and National Director I. J. Brown—each of whom, said the national president, was one of the best workers in the United States. He likewise paid his respects to the other national board members, who have practically laid down their own business to serve the interests of the national body, and each and every one of its component parts. Mr. Fee spoke of the helpfulness of the profession in making the Panama strip and the island of Cuba inhabitable, acknowledgment of which was voiced by a gentleman of prominence in full possession of the facts to him in person

PHOTOGRAPH TAKEN AT THE COMPLIMENTARY DINNER GIVEN IN HONOR OF FRANK J.

ır six years ago at a national meeting comfort stations were urged in parks ublic places. Others said we were g credit for recommending the es- ıment of these civic necessities. In other directions have the plumbers he initiators, where since others have mended the adoption of ideas which cords will show originated with us. paid his respects to the transgressing ers of the flock, which, said he, are nd far between. He spoke of the co- ion of the manufacturer and jobber. we want, said he, is merely a good for ourselves and families. Compe- as to-day exemplified, instead of the life of trade is really its death. e more he referred feelingly to the of friendship which must exist for ıe so far as he is concerned between ose present. He wished to impress the attendants of this mighty suc- l function that he would serve all the interests of all the branches of the trade right.

In concluding the best speech he ever made in his life, and one that will stand out for sincerity, charity and helpfulness with any heretofore made in the organization or out of it, he paid a glowing tribute to the good work rendered the association by the Hon. William Dalton in his successful efforts to have the bill passed in the New York State Legislature in which the general contractor is more or less emasculated from the situation. Mr. Fee stated that he had been authorized by the organization to extend its appreciation to the good gentleman, who was absent in Europe last July. He took occasion at this time to thank Mr. Dalton; and the sense of the meeting was that a rising vote of thanks be recorded in Mr. Dalton's behalf. Mr. Dalton rose and acknowledged the tribute. The rising vote of thanks was proposed by Charles Murphy, national secretary.

ɔCIATION OF MASTER PLUMBERS, AT THE HOTEL KNICKERBOCKER, FEBRUARY 20, 1913.

Former National President John Byrns was presented. This famous old veteran, who left a sick bed to attend the function, and who stated that if necessary he would have been present even if a shutter had to be called into play, received an ovation. Twenty-six years ago, said he, I was president of this grand organization. Some seven years prior thereto we, the New York master plumbers, found it absolutely necessary to get together because of the multitude of evils which had crept into our trade. We called upon those interested in the stopping of the evils in the trade, but were advised by the supply men that their business was conducted principally out of town, and not in New York. Whereupon, continued the speaker, we called together the master plumbers throughout the country in the hope of establishing a national association. History shows that this was done. The motto, "They builded better than they knew," eloquently tells of the success of their noble efforts. That small band of patriots has expanded until to-day, 10,000 strong, ours is the largest and most successful trade organization of its kind in the entire world. Mr. Byrns tenderly spoke of his observance of the qualifications and qualities as well, of Mr. Fee when he entered the association; and, said he, I long ago expressed the opinion "that there was presidential timber in that young man." My prophecy has been fulfilled, and upon surrendering the ship of state to his successor it will be written by the organization's historian that the Frank J. Fee administration was one of the progressive and successful years of the national's history.

Former National President Walter D. Nolan, Washington, D. C., responded to his introduction with a talk upon loyalty. He had been through the national office and he knew how necessary it was to have the undivided support and co-operation of all the members. The spirit of organization cannot be acquired, like other tastes. It is born in men. This is indicative in the person of Mr. Fee, and Mr. Byrns, who so nobly handled the government of the association a quarter of a century ago, and others too numerous to mention at this time, who have practically made the national association their life's work. Mr. Nolan stated that the previous orators had so fulsomely covered the situation that there was not much left for him to say. However, he would reiterate that loyalty should be the watchword of the association. Attend the meetings, all those possible for you to do so, and the profits accruing from the exchange of experience and counsel of the older heads will carry its own reward.

As each guest arrived he was requested to subscribe his name to a register. Mr. Nolan now had this in hand, and he presented it to Mr. Fee, wishing him Godspeed and every success. No matter how long he lived or where, so long as he had this volume with him he was assured of perhaps the pleasantest memory of his life, one of them at least.

Mr. Fee received the book appropriately, and realized that the expressions of goodwill and friendship therein contained were

evoked by the high office which he held, and not by the person.

A. Selden Walker, New Jersey's favorite son, and a former distinguished national president, was introduced. He spoke of his State as the Garden State of the nation—which it is—and while small he had no apologies to make for it commercially, or from an organization point of view. Mr. Walker spoke of the modesty of the present incumbent of the national presidency. Having occupied it himself, he knew of the endless duties necessary to be performed, of the frequent personal neglect of business, with consequent financial losses, and the multitude of affairs generally with which the national president is surrounded from the time of his accepting the gavel of authority until his surrendering the ermine robes of state to his successor. When assuming membership in this greatest and most beneficent of organizations, obligations are assumed as well. Just because a man carries a certificate of membership, that will not let him out. He must attend his meetings, and have a voice in the affairs of his association, or he is what may be properly termed dead timber. We want workers, must have workers, and the members are negligent in their duties if they fail to take an interest in what vitally concerns them. Were they cognizant of the endless benefits derived, and the protection thrown about them by their association, they would not forsake their obligations. Mr. Walker wished the national president Godspeed, and expressed his extreme pleasure at being present to pay his respects to the guest of the evening.

Commissioner of Elections William Dalton was introduced, and wittily addressed the attendants. Before Mr. Fee was born, said he, in fact many years ago, he enjoyed an apprenticeship in the trade of plumbing, and was upon the payroll, however modestly, of John Downey, Locke & Munroe, Philbin & Quinn; all of which happened some 45 years ago. He spoke of the organization of which he was the sponsor, and to which belonged the national president and Harkness B. De Voe, a prominent member of the association. Their wonderful support to him in his field of endeavor, and their prompt response at all times to requests for calls upon their services, led him to say that in any way in which he can serve the plumbers of New York City and State he shall be only too happy to do so. President J. J. Hannegan, of the Manhattan local, told of his method of being drafted into the service of the New York City association. This honor said he had been thrust upon him through the machinations of one Jere L. Murphy, who, when almost pressed into service stated that he was a sick man, and that the dignitarian, John J. Hannegan, was the most available man for the place. Mr. Hannegan was glad to see so many members present at this magnificent tribute to our esteemed national president. His heart would be filled with joy, he said, if he could see them all at our meetings. Members should attend their meetings. We have only two a month, said he. They ought to be present at least at one. Each and every man should be present to lend his voice to the matters in hand. In selecting a corps of efficient and active workers to assist him in the successful carrying out of his program for the year he adopted the adage of the sages: "Old men for counsel and young men for war." Despite the fact that John Byrns had not been active upon committee work for 15 or 17 years he had drafted Mr. Byrns to lend him his able advice and counsel, and he was happy to state that Mr. Byrns had accepted the post. He referred to the successful State trips which he had taken in company with State President Frank B. Lasette. The mention of Mr. Lasette's name was the signal for an outburst of applause. This trip required 17 days. We were up, said he, from 6 or 7 o'clock each morning until sometimes 2 or 3 o'clock the following day. In Utica we put each and every master plumber in the association. Mr. Hannegan spoke of the fraternal spirit which was part and parcel of the organization. He mentioned the demise of an old member, who might have been put in Potter's Field had it not been for the intervention of the association, who saw to it that the body received decent burial, and for which the association is paying the bills. Our is an association, said he, where fraternity will sooner or later point out a means for the taking care of our members in adversity. Mr. Hannegan's humanitarian notes called for a hearty response from his listeners. He paid his respects to the manufacturers and jobbers present, and hoped that the friendly feeling indicated by their attendance might last for all time.

E. Hammann, J. L. Mott Iron Works, briefly addressed the meeting. Mr. Hammann referred to the establishment of the Baltimore resolutions, wherein, said he, the word "protection" was intended only for the plumbers. The idea had expanded as the years past so that the protection is mutual to the plumber, the manufacturer and the jobber. He has had occasion to meet Mr. Fee in interviews. Mr. Fee possesses the attributes, rare indeed, of viewing the matter under discussion from all angles, and reaching his conclusions only after a thorough study of the question's many sides. The relationship of the manufacturer, jobber and master plumber to-day are closer than ever before. The unity which is evidenced by the happy present relations of the trade's three branches prompted a toast which Mr. Hammann gracefully rendered.

William J. Flynn, vice-president of the Greater New York association, member of the Bronx local, and the chairman of many important Greater New York committees, was introduced, and splendidly received. He paid a splendid tribute to Mr. Fee, with whom he has worked in close harmony for many years. He said it was fine, indeed, to have a national president from one's own home town. He considered it an occasion for great pride. In conclusion, Mr. Flynn proposed a toast which was as follows:

"Here's to our home, whether north, east, south or west:
Here's to our home, the place we love the best."

Jere L. Murphy, one of the prominent master plumbers of New York City and the United States, was introduced, and he directed the attention of the manufacturers and jobbers to the fact that when they were dealing with members of the master plumbers' association, they were conducting business with merchants. When, said he, you do business with those outside of our organization you enter into business with the men who deal only in labor. Mr. Murphy expressed satisfaction at the equitable and fair dealing which was manifest to-day throughout the trade. He paid his compliments to the manufacturers and jobbers. The success of the organization of which he was proud to be a member, and its beneficent activity, was a real insurance to the members of the selling fraternity. In fact were it not for the existence of the master plumbers' association the chances of the supply industry would be slim indeed. Twenty years ago conditions were bad. Bills which the plumbers owed were slow of collection. We could not make a success of our business, gentlemen, without you, and without our association you would not to-day enjoy the success which you so richly deserve. Our noble national president should feel proud of the representative gathering of gentlemen to do him honor this evening. I doubt if a more imposing set of gentlemen could be found anywhere in these United States. In conclusion Mr. Murphy stated that the idea of this banquet was only developed two weeks ago. The success of the entire proposition, said he, rested with I. J. Brown While he and Mr. Knight were upon the committee the work was successfully performed by Mr. Brown, whom he regretted to say, had let neither Mr. Knight or himself sleep during the past fortnight. At any hour of the day or night he was liable to be disturbed by phone calls. His rest was broken up so regularly and inconsiderately, that he was obliged to notify the telephone boy when he recognized Mr. Brown's voice upon the wire to state that he had gone to Europe.

Frank Meyer, of Meyer-Sniffin Co., was introduced. He briefly expressed his felicitations to the guest of the evening, and expressed his pleasure at being present at so delightful an affair.

An interesting address was made by J. P. O'Brien, of the Tenement House Department. Mr. O'Brien stated that the rules and regulations of his department would be futile unless the plumbers not affiliated with the master plumbers' associations performed their work as well as those in the association. The million dollars to defray the expenses of the department might well be considered lost if the sanitary measures laid down by the engineers were not properly carried out. Great efforts should be made to embrace all the legitimate master plumbers in the association, and no time should be lost in defending this fair city from the ruthless work of incompetent and selfish persons masquerading as capable plumbers. The entire energy and vigilance of the association should be directed toward the correction of this serious trade evil. Some deterring effect has already re-

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sulted from fines and prison sentences, but the watchfulness of the organization must not subside, if the health of the community is to be safeguarded.

John J. Hannegan eventually succeeded in securing the gavel from Mr. Knight, the toastmaster, and called for a rising vote of thanks for the committee. This practically wound up the most successful banquet which has ever been held in association affairs in New York City.

The occasion for a banquet to a national president from the New York City association is such a rare occurrence that there was a splendid outpouring from all departments of the trade. Principals from the most important manufacturing and jobbing concerns were present, and the array of prominent and successful master plumbers likewise commanded attention. The MERCHANT PLUMBER AND FITTER took full cognizance of the occasion and was represented by John H. Parker, W. J. Marshall and W. G. McCormick.

Convention of the Massachusetts State Association of Master Plumbers.

THE annual convention and election of officers of the Massachusettes State Association of Master Plumbers will be held in Boston, at the Hayward Assembly Rooms, 24 Hayward Place, on Wednesday, April 9.

In connection with same, President Cassedy has appointed a committee to arrange for a State dinner on the night before, Tuesday, April 8. It is the hope of the State officers that all out-of-town members will arrange to come to Boston the day before the convention and attend the dinner to be held in the evening, and prepare for the work to be done in the convention the following day, as well as to take advantage of meeting their fellow members socially and help promote the fraternal spirit so necessary in the organization.

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NEW YORK, FEBRUARY 25, 1913.

The General Contractor a Perennial Question.

For years the general contractor has been waxing fat at the expense of the master plumber, and those engaged in other legitimate pursuits in the building trade. Volumes have been written about his encroachments upon the master plumbers' domain; and many fruitless attempts have been made to rid the trade of this "Old man of the mountain." At each and every convention something is said, but that is about all that is accomplished toward the removal or obliteration of this pest.

For the benefit and advantage of those who might wish to study the law which has been effective, and successfully so, in New York State since the first of September, 1912, due to the untiring energy and unflagging zeal of National President Frank J. Fee and National Secretary Charles Murphy, we present herewith, and gladly so, the provisions of this enactment, which besides protecting the master plumber in the just and righteous pursuit of his trade, has been the means of saving thousands of dollars to the taxpayers of the State.

This law might well serve as a model for other State associations to present to their Legislatures for enacting. Only when this is done will the master plumber be freed from the devastating influence of this species of parasite.

CHAPTER 514, LAWS OF 1912.

AN ACT to amend the general municipal law and the State finance law, in relation to the awarding of contracts.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Article five of chapter 29 of the laws of 1909, entitled "An act relating to municipal corporations, constituting chapter 24 of the consolidated laws," is hereby amended by adding at the end a new section, to be section 88, to read as follows:

Sec. 88. Separate specifications for certain contract work. Every officer, board, department, commission or commissions, charged with the duty of preparing specifications or awarding or entering into contracts for the erection, construction or alteration of buildings in any county or city, or the borough of any city, when the entire cost of such work shall exceed $1,000, must have prepared separate specifications for each of the following branches of work to be performed:

1. Plumbing and gas fitting.

2. Steam heating, hot water and ventilating apparatus.

Such specifications must be so drawn, as to permit separate and independent bidding upon each of the classes of work enumerated in the above subdivisions. All contracts hereafter awarded by any county, city or borough, or a department, board, commission, or commissioner or officer thereof, for the erection, construction or alteration of buildings or any part thereof, shall award the respective work specified in the above subdivisions separately to responsible and reliable persons, firms or corporations. Nothing in this section shall be construed to prevent the authorities in charge of any county or municipal building from performing any such branches of work by or through their regular employes, or in the case of public institutions, by the inmates thereof.

Sec. 2. Article two of chapter 58 of the laws of 1909, entitled "An act relating to State finance, constituting chapter 56 of the consolidated laws," is hereby amended by adding at the end thereof a new section, to be section 50, to read as follows:

Sec. 50. Separate specifications for contract work for the State. Every officer, board, department, commission or commissions charged with the duty of preparing specifications or awarding or entering into contracts for the erection, construction or alteration of buildings for the State, when the entire cost of such work shall exceed $1,000, must have prepared separate specifications for each of the following branches of work to be performed:

1. Plumbing and gas fitting.

2. Steam heating, hot water and ventilating apparatus.

Such specifications must be so drawn as to permit separate and independent bidding upon each of the classes of work enumerated in the above subdivisions. All contracts hereafter awarded by the State, or a department, board, commission, commissioner or officer thereof, for the erection, construction or alteration of buildings or any part thereof, shall award the respective work specified in the above subdivisions separately to responsible and reliable persons, firms or corporations. Nothing in this section shall be construed to prevent the authorities in charge of any State building from performing any such branches of work by or through their regular employes, or in the case of public institutions, by the inmates thereof.

Sec. 3. This act shall take effect Sept. 1, 1912.

Personal

EDWARD DISBROW, a popular figure in Metropolitan trade circles for upwards of 15 years, has recently been appointed sales manager for the Fords Terra Cotta Works. For several years Mr. Disbrow has been a successful manufacturer's agent in and about New York, and with his previous lengthy experience has established a long line of friends, all of whom join with us in expressing our delight at his new connection. Needless to say we wish him joy, and if rooting will win Ed's new position is an assured success. His new address is the Terminal building, Park Ave. and 41st St., Manhattan.

HAROLD S. MADDOCK, JR., was the major domo to what might properly be sketched as a graphic wedding at the Hotel Vanderbilt, New York City, upon the evening of the 19th instant. In company with Messrs. Bissell, Forbes, Hardman, Brady and a flock of chosen spirits, the journey from New Orleans via the Appian Way was skilfully consummated. Arriving at the hotel Brother Hardman divested himself of the coarser and more plebian attire, and decorated himself in his court dress. With the cross of the Legion of Honor delightfully and expressively hung from his collar, he was a rare pic-

ture. The Knights of the Pencil betook the opportunity presented by the Hardman expanse of shirt to indite missives of affection, direction and affectation, together with some other "'tions" in quantity until the aforesaid and hitherto immaculate shirt bosom looked like one of Dink Boot's etchings, so cleverly was the work done. Be that as it may, nothing dismayed, our young Trenton friend attended the marriage ceremony with his accustomed eclat and spirit, and enjoyed one of the finest times in his life, let us hope. As directors of charcoal work par excellence, we cordially recommend Messrs. Maddock and Bissell.

Eastern Supply Association Met February 19, 1913.

AT the Hotel Astor, New York City, upon the afternoon of the 19th instant, a well attended and unusually interesting meeting of the Eastern Supply Association was held. There was a splendid attendance noted by Frank Hanley, the secretary, who, as usual, had everything in workable order for the comfort and convenience of the members.

The following gentlemen representing connections set opposite their names were present.

G. E. Keener, Bayonne Sup. Co., Bayonne, N. J.
F. W. Hubbard, M. B. Hubbard & Sons Co., Boston, Mass.
O. J. Saxe, Dalton-Ingersoll Mfg. Co., Boston, Mass.
R. D. A. Thompson, Thompson-Dunkee Co., Boston, Mass.
F. W. Zander, Zander Plumbing Sup. Co., Buffalo, N. Y.
F. H. Boardman, Ronalds & Johnson Co., Brooklyn, N. Y.
Jas. W. Winan, American Plumbing Mfg. Co., Brooklyn, N. Y.
H. B. Hallett, Eastern Range, Boiler & Welding Co., Conshohocken, Pa.
Wm. Higgins, J. J. Ryan & Co., Chicago, Ill.
Monte F. Jacobs, John Wood Mfg. Co., Conshohocken, Pa.
Victor Mauck, John Wood Mfg. Co., Conshohocken, Pa.
W. T. Selleck, Chamber of Commerce, Chicago, Ill.
R. P. Shannon, The Pfau Mfg. Co., Cincinnati, O.
J. W. Gardner, A. Y. McDonald Mfg. Co., Dubuque, Iowa.
H. C. Fletcher, Plimpson & Hills Corp., Hartford, Conn.
Geo. W. Arnett, Lambertville Pottery Co., Lambertville, N. J.
Philip J. Faherty, Lambertville Pottery Co., Lambertville, N. J.
H. S. Maddock, Jr., Thos. Maddock's Sons Co., Trenton, N. J.
M. L. Lissberger, Marks Lissberger & Son Co., Long Island City, N. Y.
O. Falk, Marks Lissberger & Son Co., Long Island City, N. Y.
J. W. Gannon, Union San. Mfg. Co., Noblesville, Ind.
De Witt Cooke, W. Egbert & Co., Newark, N. J.
P. N. Welch, The Peck Bros. & Co., New Haven, Conn.
H. E. Coe, The Peck Bros. & Co., New York City.
J. J Conran, Standard San. Mfg. Co., New York City.
John J. Delany, Coyne-Delany Co., Brooklyn, N. Y.
E. W. Hotchkiss, Hotchkiss, Vail & Garrison Co., New York City.
Chas. W. Frean, New York City.
Alan W. Ham, U. S. San. Mfg. Co., New York City.
L. Hassinger, John Trageser Steam Copper Works, New York City.
Wm. Hawkins, John Simmons Co., New York City.
L. O. Koven, L. O. Koven & Bro., New York City.
John A. Murray, John A. Murray Co., New York City.
A. Persons, Haydenville Co., New York City.
L. S. Rothwell, American Pin Co., New York City.
Wm. Schulmerich, L. O. Koven & Bros., New York City.
B. Schutz, Gomerville Iron Works and B. Lissstergert Co., New York City.
Harry A. Stevens, Hinsdale-Meyer Co., New York City.
T. Markillie, United Lead Co., New York City.
W. Y. Thornley, The Thornley Sup. Co., Pawtucket, R. I.
Wm. D. Blake, W. D. Blake Co., Portland, Me.
J. M. Burr. Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
A. H. Cline, Jr., U. S. Sanitary Mfg. Co., Pittsburgh, Pa.
Frank J. Torrance, Standard Sanitary Mfg. Co., Pittsburgh, Pa.
John T. Brown, Jr., Haines, Jones & Cadbury Co., Philadelphia, Pa.
Wm. C. Fleck, Fleck Bros. Co., Philadelphia, Pa.
J. W. Graham, Kitson Co., Philadelphia, Pa.
H. H. Helleman, The Penn. Engineering Co., Philadelphia, Pa.
W. G. Hunsperger, Haines, Jones & Cadbury Co., Philadelphia, Pa.
F. G. Hoffman, N. J. China Pottery Co., Trenton, N. J.
J. W. Lyons, Keystone Pottery Co., Trenton, N. J.
W. G. Titus, Trenton Potteries Co., Trenton, N. J.
W. C. Warren, Warren, Balderston & Co., Trenton, N. J.
Geo. Herth, Jr., Standard Sanitary Mfg. Co., Washington, D. C.
James A. Messer, John Mitchell, Jr., Co., Inc., Washington, D. C.
John Weeks, Jr., John Weeks Sons Co., Watertown, N. Y.
R. C. Wilson, Northern Brass. Mfg. Co., Waukegan, Ill.
Jas. F. Evan, Wyoming Valley Sup. & Mfg. Co., Wilkes-Barres, Pa.

Edward F. Trefz, field secretary of the Chamber of Commerce of the United States of America, delivered an illuminated and instructive address upon the aims and purposes of that body. So impressed was the association that by unanimous vote it decided to affiliate with the body represented by Mr. Trefz.

P. M. BEECHER, PRESIDENT EASTERN SUPPLY ASSOCIATION.

J. Chas. Parry, Standard Sanitary Mfg. Co., Philadelphia, Pa.
E. S. Thompson, Haynes-Thompson Co., Philadelphia, Pa.
R. G. Williams, Stanley G. Flagg Co., Philadelphia, Pa.
Wm. Read and D. H. Roney, Abendroth Bros., Port Chester, N. Y.
G. R. Adams, Samuel Sloan & Co., Rochester, N. Y.
W. E. Bruce, L. Wolff Mfg. Co., Rochester, N. Y.
S. E. Hunting, The Hunting Co., Watertown, N. Y.
Al. Marshall, Lincoln Iron Works, Rutland, Vt.
M. F. Corcoran, Ralph E. Weeks Co., Scranton, Pa.
Raymond H. Smith, E. Stebbins Mfg. Co., Springfield, Mass.
John Visscher, E. Stebbins Mfg. Co., Springfield, Mass.
E. E. Bennett, Pierce, Butler & Pierce Mfg Co., Syracuse, N. Y.
O. W. Middaugh, The R. C. McClure Co., Syracuse, N. Y.
F. W. Bamford and T. H. Bissell, Thos. Maddock's Sons Co., Trenton, N. J.

W. J. Hunsperger, a salesman for the Haines, Jones & Cadbury Mfg. Co., Philadelphia, discussed the "Hajoca" plan for compensating salesmen. Walter made an interesting presentation of his topic, which was immensely enjoyed by all.

The following new members were elected: W. A. Birdsall & Co., Newark, N. J.; Hercules Iron & Supply Co., Boston, Mass.; Sullivan & Daly Co., Boston, Mass.; Lambertville Pottery Co., Lambertville, N. J.; Medina Foundry Co., Medina, N. Y.

The Framingham Plumbing Co., of South Framingham, Mass., Edward K. Conant, manager, is installing a bathroom and adding several radiators to the apartments of W. B. Kittredge, 120 Hollis St.

Cost Accounting for Plumbers' Estimates.

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitter.

ESTIMATING is one of the most important, if not the most important, of the functions of the plumbing business, and has never received the attention to which it is entitled, because nearly every really competent estimator has regarded himself as a genius and his methods as peculiarly his own, and has jealously guarded them as secrets.

It is a common experience of men who get bids on plumbing work to find that estimates received from different plumbers on the same piece of work vary so widely, that is difficult, and in some cases impossible, to determine from the figures submitted the actual value of the work to be done. That is, not the price at which it can be bought, for that is usually shown by the lowest figure, but what the plumber really should receive for the job.

When a plumber takes a contract for work at a price so low that it holds out the prospect of a loss to him, it is but human nature to endeavor to skimp the work as much as possible, save a dollar here and there, to bring the expenses as low as possible. The business man of to-day is keen enough to know that he can expect satisfactory results only when he is paying a fair profit for them. Work done without just returns is heartless, slipshod work; and the public knows it is the most expensive work it possibly can buy.

It has been the writer's experience that the average plumber, as a rule, is not a business man, as he is, if he is a good plumber, more engrossed in his work than he is in the problem of running his business and making his estimates in the old hit-or-miss way is making no advance, but rather is falling back and existing on what "fat" he may have been able to accumulate in the past, and also on the credit given him by the supply houses which, in many instances, nurse him along in the hopes of working out an old indebtedness.

What the losing plumber wants to know is how he can become a winning plumber. There ought to be no reason why any business enterprise should not pay, if there is a sufficient volume of business, whether it is necessary to employ one person or more, if the prices are fair, or such as enables others in the same line to succeed.

But what is the plumber to do who is confronted on every side by the price-cutter, and having no adequate knowledge of his costs backed up by any complete accounting system is obliged to do what so many others have done, take about everything that came along or that he could get which showed an apparent small margin of profit, often loading his shop with work, that if there was any margin in his favor, it was so small as to be practically nil.

Can you conceive of anything more unwise or unbusinesslike than for a plumber taking work at a price that he knows is a great deal below the actual cost just for the sake of getting it away from some competitor? A paramount evil is the mad scramble of some plumbers for volume of business regardless of any other consideration.

The variation in estimates on the same job of plumbing has always been a puzzle to men in other lines of business, and this seeming inability to put a definite price on their work has been the cause of much uncalled-for criticism of the plumber's business ability. That this variation is justified in the great majority of instances is due to the fact that the plumbing business is one in which each individual job, as a rule, has to be handled differently and under conditions peculiarly applicable to that particular job. One rule will not answer in every case, even when the conditions are seemingly the same. It is not only difficult to estimate how much time it takes to get out a job or determine the amount of work a man can do, but impossible to the extent of absolute accuracy. Estimating is more or less guesswork.

It is frequently valuable to confer with the foreman or the workmen regarding the length of time required for a certain job, but you should bear in mind that the workmen's estimate of the time is more apt to be too low than too high. The fact that one man will do a certain job in much less time than another will take to do the work need not interfere with the general results in a year if the proper average is used in making the estimate.

Plumbers as a class have never been taught the science of estimating and making quotations. Estimating is as much a science as any analytical laboratory work. It consists in carefully dissecting the specifications or the job into the ultimate units of production, and the farther this dissection is carried into simple acts and motions the more correct will be the estimate. The true principles and practise of estimating includes the analysis of any job of plumbing into its component parts or units, and the ascertainment of the time it should take an average workman to perform the work on each of them, together with the amount of special materials necessary for the work and the price of each—that is, the cost—and the proper amount to add to afford a right profit.

This analytical method is the only correct way of getting at the right price for any piece of work and avoiding errors of judgment in pricing the same, and has long been in use in other lines of engineering and manufacturing, though but recently brought into prominence in the plumbing business through the trade journals, such as the MERCHANT PLUMBER AND FITTER.

Before going into further details of estimating we would impress upon all, whether employe or employer, the fact that all estimating and charging must be done at a price based upon the average cost of production, and that, while this average may seem to be wrong when the work has been done by an extraordinarily good workman, or by an unusually slow one, it will work out correctly in the course of the year. This is very important, and we shall, therefore, take occasion to refer to it frequently in order to impress it upon your mind as strongly as possible.

Keep this before you: "We buy average labor at an average price, and must, therefore, sell on an average, unless we are willing to take the extreme trouble of seeing that each job of plumbing is performed by the man upon whose speed it was estimated." This proposition is so absurd and impracticable that we can at once see that *"the average of averages" is the only correct method.*

An architect will analyze his building down to so many yards of digging, so many perches of stones of such a size and quality, so many pieces of lumber of such and such a size, and so on, and write out careful specifications for the guidance of the workmen, and make drawings with the dimensions and fittings all marked carefully. Many plumbers, however, simply guess at so many days for this, that and the other operations and add up the guesses.

It is just as possible for the plumber to be guided by previous experience as the architect, and just as easy to figure that it will take so long to run a drain from the street sewer, allowing for the kind of dirt to be dug, and depth of sewer, the length of time it takes to erect and test such a length of soil pipe stack; how long it takes to put in the water main, set the kitchen boiler, sink and laundry tubs and make the connections; how long to rough in the bathroom, and set up and connect the bathroom fixtures, tub, lavatory and water closet, etc. If daily job tickets are adopted by plumbing contractors the workmen should be instructed to keep a separate job ticket, with the time and materials used on each part of the work.

If the plumber knows that the average time for fitting up a bathroom or lavatory of a certain style takes so many days, how easy it would be to figure up how much time it would take to fit up three or four or a dozen bathrooms or lavatories. If every complicated job is reduced to its simple elements, such as so many sinks

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take so many days, so many bathrooms so many more days, the drain will require so much time, the soil pipe so much, water main so much more, kitchen boiler and sink so much time, laundry tubs so many days, and so on, with each part of the job, how easy it becomes to sum up the total time it will take to complete the job.

The architect knows and figures that it takes a certain time for a laborer to dig out a hundred cubic yards of clay and so many team loads to carry it away. The difference is that the architect and engineer are governed by the great law of averages that they have been taught in thir schools, and take the average known products as their guide, while the plumber thinks he is a law unto himself and that he can do things better and faster than his fellows and is above and beyond the law of averages.

The plumbing business is reducable to a series of basic operations that can be separated from each other and gauged and averaged so that there is a sound basis for calculation as to what may be expected. The knowledge of this basic unit value of each operation constitutes the stock in trade of the good estimator, together with the ability to analyze the proposed work into those units. This has been done in the machinery business for some years, and in the engineering trades, until they have established averages that are so nearly correct as to be safe, and they were ready for scientific management and efficiency when they were brought to the front.

Until this is done it will be impossible for the plumber to make scientifically correct estimates of the probable cost of work or to get the best out of his shop. The basis of calculation must be correct, and must be uniform with the basis of production, and both based upon actual averages. Any good cost system should show the average cost of each unit or section of a job, and it then remains for the estimator to decide the length of time which a certain job as a whole will take.

In determining or estimating the value of any contract or job of plumbing work, large or small, there are four different costs which enter into the question: First, material; second, labor; third, incidental expense, such as permits, fares, board, hauling, etc.; fourth, overhead or running expense.

With only an estimate of the cost of labor, material and incidental expenses, and no idea of overhead or operating expenses, in many cases the replacing of a single defective fixture, wipes out the entire margin of profit, to say nothing of the many other losses which may, and quite often do, occur which were not figured on. Is it any wonder the plumber is not getting rich?

Labor, materials and incidental expenses are considered by everybody in estimating the charge which should be made for the article, repair job or contract. They are considered because they have to be. Overhead or operating expenses are neglected by many because they do not seem to apply immediately to the job under consideration. Such neglect can only have one name—business suicide. The load of overhead expense should be borne by every department of business, operation, contract, and by every article of supply that is made or sold.

Some plumbers base their calculations of operating expenses upon the volume of their sales, and other upon the total estimated cost of labor, materials and incidental expenses. The objection to the first method is that your operating expenses are running on whether you make any sales or not. Net profit is based on sales, but not overhead expense. The fallacy of the second method is seen in its unfairness to a contract involving large expenditure of costly materials, for it cannot be correct to make such a contract bear a larger proportion of the overhead expense than another involving the same expenditure of time, and similar in all respects, except in the matter of the value of the material employed. For that reason overhead expense should not be charged to merchandise account, because merchandise varies where labor does not. Merchandise ought to be sold for profit only.

In the early days of cost accounting it was the custom to apportion the percentage of overhead expense upon the combined cost of labor and material, and is known now as the "flat rate" method. Later we became more enlightened, and realized the absurdity of such loose calculations, and then the plan was adopted of prorating overhead expense at a percentage on the estimated wages of labor as past experience had proved to be adequate. It has been found that the average percentage of overhead expense to labor in the plumbing business is 40 per cent. To compute the shop cost of labor, therefore, if you are paying an average rate of 45 cents an hour to journeymen plumbers, add 40 per cent. for overhead expense to this rate, which will make the shop cost of labor 63 cents per hour. This is the shop cost that should be used as a basis in all your estimating. Now if you add 20 per cent. for profit to the shop cost of 63 cents, you have as a selling price 75 cents per hour, which is the usual charge per hour for journeymen's labor on jobbing work in some of the larger and progressive plumbing shops.

Also, if you are paying apprentices, say, on an average of 15 cents per hour, add 40 per cent. for overhead expense to this, and you have 21 cents as the shop cost per hour for apprentice's labor. Now, if you add 20 per cent. for profit to the shop cost, it gives you 25 cents as the proper selling price per hour for apprentice's labor.

Some 25 years back, when the writer first became connected with the plumbing business, journeymen were paid $15 per week of 60 hours, or 25 cents per hour. Now, adding 40 per cent. overhead to this and you have the shop cost of 35 cents and by adding 25 per cent. profit to the shop cost you get almost 45 cents, which was the prevailing selling price per hour for a journeyman plumber's labor on jobbing work at that time.

Under the present method in figuring up the cost of an estimate, the materials and incidental expenses should be listed on your estimate sheets separately at cost prices, and the labor at the shop cost (wages plus overhead expense) and then add your percentage of profit to the combine shop cost, as follows:

Materials	$10.00
Incidental expenses	.50
10 hours plumber at 63c. (at 45c., plus 40 per cent. overhead expense)	6.30
10 hrs. helper at 21c. (at 15c., plus 40 per cent. overhead expense)	2.10
Shop cost	$19.20
25 per cent. profit	4.80
Selling price	$24.00

Never take a job at less than the shop cost, viz.: materials, incidental expenses and wages, plus overhead expense—as you are losing money the moment you do so. Before profits can be made the amount of overhead expense must be added to the shop cost.

The latest modern method of taking care of overhead expense is by the "hour cost." and is fast being adopted by printers, plumbers, engineering contractors and machinists. While for practical purposes it is much simpler to base the calculation of overhead expense on the amount of wages paid, and it will usually be found that the ratio of "total wages paid" to "total hours" fluctuates very little in the plumbing business, yet the method of calculating this item on the "total hours worked" is certainly more accurate than the "total wages account." The whole thing of changing from the basis of wages as a cost to the "hour product" cost is so entirely revolutionary that we must have patience to wait until more begin to see it is right, for the longer they study costs and investigate their basic principles the more they will become convinced that the old method is wrong.

Monthly Meeting of the New York Chapter.

THE New York Chapter of the American Society of Heating and Ventilating Engineers held its regular monthly meeting in the Engineering Societies' building, 29 W. 39th St., New York.

The chief talk of the evening was by Walter S. Timmis on "Factory Ventilation in Loft Buildings."

The meeting night of the chapter was changed by vote of the members from the third Tuesday of the month to the third Monday. If it seems expedient, the board of governors can change the date of night of meeting.

The secretary announced the following elected to membership: John F. Carney, Long Ridge, Danbury, Conn., member; A. A. Kiewitz, 500 Park Ave., New York, member; C. N. Flagg, Jr., 27 State St., Meriden, Conn., member; E. A. Scott, 239 W. 39th St., New York, member; H. G. Issertell, 527 W. 34th St., New York, associate, and J. F. Hanbury, 500 W. 173d St., New York, junior.

The Central Plumbing and Heating Co., of Rochester, N. Y., has been incorporated. Capital, $5,000. Incorporators: Louis F. Zimmer, 511 Webster Ave.; Edward J. Hunter, 173 Peck St.; John W. Ash, 39 Concord St., all of Rochester, N. Y.

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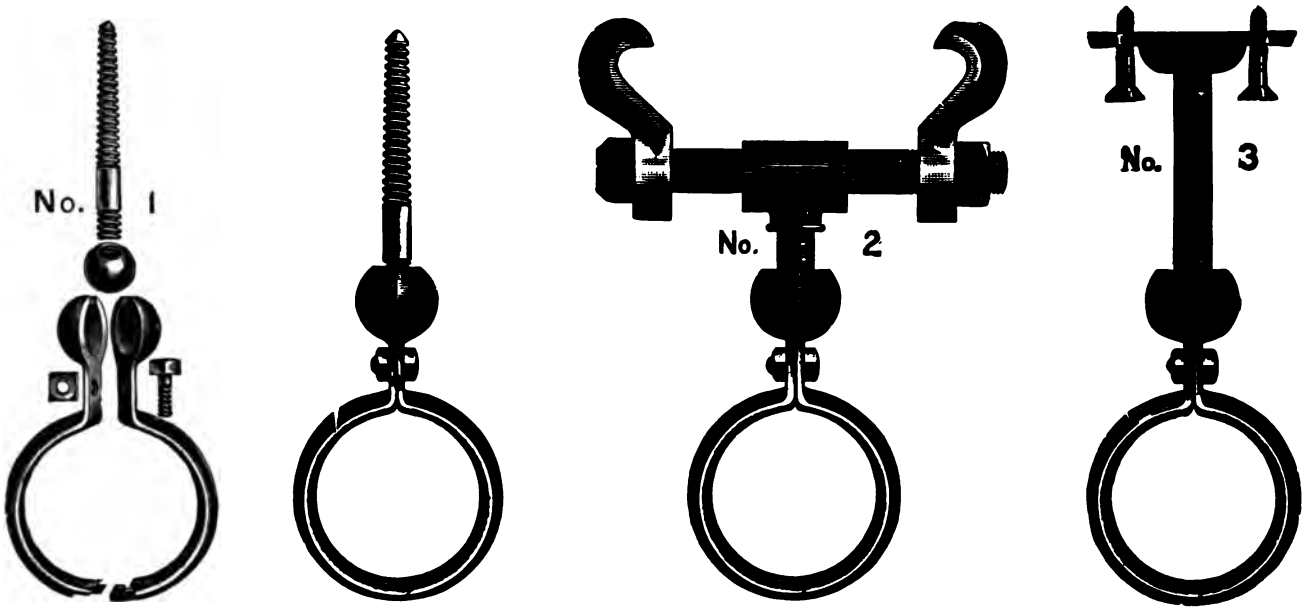

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Correcting Hot Water Troubles.

Lukewarm Discharge at Fixtures Is Often Caused by Return Pipes of Insufficient Capacity—Clogging Through Chemical Effects of High Water Pressure.

By JOSEPH H. BOOTH

AN instantaneous supply of hot water is no longer deemed a luxury, but is a daily necessity. The old segregated manner of living is passing away. Communities of tenants, frequently equal in number to a good-sized village, now live under one roof. Their demands for service furnish a problem which must be studied scientifically by physicist, engineer and experienced mechanic.

Disputes between landlords and tenants over the hot water supply have been decided in the courts on broad grounds. The judiciary has refused to make hair-splitting decisions. It has sided with tenants in that they have a right to a good supply of hot water, but it has likewise sided with landlords where it has been proved that they have done everything in their power to better existing conditions. Since there is something to be said on both sides, the question cannot be treated lightly, and causes, effects and remedies must be looked into carefully.

POOR DELIVERY.

The source of trouble, especially in the newer buildings, can in many an instance be traced to a "robbing Peter to pay Paul" process. The architect and engineer, in drawing up the plans, make every provision for a plant which will meet all contingencies. Instead of allowing these plans, as originally drafted, to be carried out, it often happens that the contractor and owner "get together" to make a "saving" in cost. The contractor will suggest that by "duplicating" a plant which is giving satisfaction in such and such a building, a great saving will be made, and the suggestion is accepted without considering whether the conditions under which the plant will have to work in the new building are the same as in the old. The architect and engineer are instructed to modify the specifications, in order that the contractor may install his "equally as good" plant. After the work is finished and the apartments are leased, the plant fails to meet demands. This often necessitates the substitution of a new plant.

A common source of complaint is the poor delivery of hot water to fixtures. Tenants find water discharging at a temperature as low as 60° F., and are compelled to waste 10 to 30 gallons before warmer water is supplied. This may be accounted for by the fact that the water cannot be returned naturally to the heater and circulation kept alive.

This is frequently caused by the practise of cross-connecting several hotwater risers under cold roofs to a small return pipe of about one-tenth the sum of the areas of the risers. It is a physical impossibility for this return properly to perform its functions; so the water practically becomes "dead." Often pipes are not braced and sag like clotheslines. Then again they are not covered and the water loses all its heat before returning to the heater. One common bad practise is the bushing down of the sizes of tappings in heater, storage tank and fittings, which creates friction and retards the whole plant's efficiency. The natural expansion of pipes is, likewise, in many cases unconsidered, and breaks inevitably result. If a long stretch of pipe is run, a loop or some allowance in the fittings must be made.

TOO HIGH FOR THE HEATERS.

The ever-increasing altitude of buildings has brought about conditions that a great many heaters, perfectly capable a few years ago, cannot stand. This applies especially to cast-iron heaters. The water is generally supplied in such buildings from the roofs, and when it reaches the heaters, has acquired great pressure. Coupled to this, is the added tension which the heaters must stand from the sudden change in temperature. The water coming to the heaters cold is immediately passed over the fireboxes, which are very hot, a neutralization takes place, with such suddenness that the cast iron cannot withstand cracking and explosions occur. The manufacturers no longer guarantee these heaters to withstand the excessive force and pressure, but still claim their usefulness. A heater must be used, in each such instance, which can bear this tension and carry a working pressure up to one hundred and twenty-five pounds. Many times a system is clogged and does not leave a free passage of water. The hydrostatic pressure necessary makes a condition in which water will not boil at its ordinary temperature. The high temperature of the boiling point forces out lime and magnesium salts, which salts get into the circulating arms and couplings of the heater and clog up the system, retarding circulation throughout the plant. Constant attention must therefore he given to cleanliness.

CALLING IN THE DOCTOR.

The effect of the foregoing hot water trouble has been to make the lot of the manager an unhappy one. Tenants pour troubles into his ears, the source of which is lack of hot water. In desperation, he calls in Dr. "Butt," the plumber, who opens the mouth of the firebox and sees evidence of a state of indigestion on the part of the heater. He sees congestion of the ashpit and stoppage of the alimentary canal, and proceeds to start a reaction by light osteopathic treatment. His overworked subject improves little under the light treatment, and, although the appetite for coal is good, there seems to be a poor assimilation. Dr. "Butt" proceeds to purge the whole system of what he felt deep in his heart was only a little rust. The subject by this time is pretty weak, being suddenly called upon to do its former work; it is not up to the strain, and cracks a rib.

Then "specialists" are called in, who proceed to condemn the whole plant, each recommending his individual specialty, usually a mechanical device.

What was originally a simple hydrostatic problem has now become a complex one in hydraulics. The remedy is to call in a plumber of modern education and training who not only understands the mechanics of plumbing but the theory and physics as well. Such a man studies the plant and the conditions under which it must work. A good heater of ample capacity is installed and the flue put in condition. He considers the natural tendency of water to circulate. He so arranges the plant that this tendency will be allowed full sway. Sometimes the adjustment or addition of loops or connections will do the work.

As an instance of what the application of physics will do, I may cite a case where there was very little hot water supply because the original plant was improperly constructed and where two additions have been made to it. The heaters would not do their work. Supposed experts had condemned the whole plant. Their remedy was worse than the disease. They suggested such drastic changes that the tenants rebelled and the owners were in desperation, for it meant the disruption of the entire system. I remedied the trouble by simply changing a few connections, thereby accelerating the circulation of the "dead" water. The plant is now giving full satisfaction to everyone concerned.—*Record and Guide.*

Business Change at Cambridge, Mass.

AFTER a business association for nearly ten years under the firm name of Higgins & Co., Arthur L. England and James S. Cassedy have dissolved partnership as plumbing and heating contractors. Mr. Cassedy will continue the business, discharging all debts and liabilities and receiving all moneys due the old concern. Mr. England will not for the present engage in active business, but will take a respite and by and bye probably enter some line of trade agreeable to his tastes.

During their career Messrs. England and Cassedy have done a vast amount of business, having equipped many of the most important and largest buildings erected in that city. They have stood at the front as experts in their line and have had the confidence and good will of the trade and the public. Upon Mr. Cassedy, who is to continue the business, the scientific and engineering part of the work has principally fallen, and to his hustling and business-like qualifications has a large part of the firm's success been due. He has many friends who will not only wish him continued success, but will be ready when occasion presents itself to contribute to his well deserved prosperity by their continued patronage.

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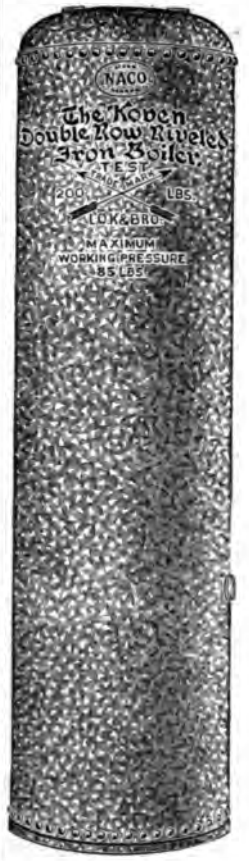

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New Jersey Notes.

THE Board of Education of Bernardsville, N. J., on Jan. 13 awarded the contract for heating and ventilating in the Liberty Corner school to the David Buist Plumbing & Heating Co. The contract price is $1,492.

Fifty members of the Master Plumbers' Club, of Atlantic City, N. J., enjoyed their annual banquet at Rochford's Cafe Jan. 21.

Licensed master plumbers of Elizabeth, N. J., will meet in the Board of Trade rooms on Thursday evening, Feb. 19, to organize a society with the purpose of bettering present conditions among local mechanics and to protect them against infringements. Temporary secretary, Frank Holland.

B. O. T. Co., of Newark, N. J., is incorporated; plumbing and sanitary fixtures and supplies; capital $100,000. Incorporators: E. A. Wilkie, E. J. Outram, New York city; W. H. Parry, Newark.

A jury in the court of Grover Williams, justice of the peace at Atlantic Highlands, N. J., on Jan. 25 awarded a verdict of $60 and costs to Terry Martin, a plumber, for work done in the Highlands Auditorium, some time ago for the proprietor, Harry Schulthrop. The owner said the place did not heat properly.

The Alm Heating Co., of New York, has installed a new heating plant in the Thatcher Brown house, at Middleton Village, N. J.

The advisability of installing a new system of heating in the new Beech St. school and in the addition to the Oakland St. school is being considered by the Red Bank, N. J., Board of Education. Some of the members of the board recently inspected a school in Paterson in which the new heating system is used, and they were favorably impressed with it. No work will be done on the new buildings till the board makes up its mind on this matter. A special meeting will be called within the next few weeks to make a decision.

Election at Jersey City.

THE annual lection of the Jersey City Master Plumbers' Association was held on Thursday evening, Feb. 6, and the following members were elected and installed:

President, A. E. Becker; first vice-president, Jos. A. Sprouls; second vice-president, John M. Pentland; third vice-president, John Henderson; financial secretary, Valentine Ringle; recording secretary, M. P. Moran; treasurer, Wm. J. Cross; sergeant-at-arms, Jas. W. Crosby.

Trustees - Jas. A. Joans, Charles Werner, Wm. B. Jackson.

Sanitary Committee J. W. Corcoran, R. Entwistle, R. Edgar.

There was a social session held after the meeting, which was largely attended and thoroughly enjoyed by the members present.

Jersey City Master Plumbers Hold Successful Open Meeting.

CHAIRMAN JOSEPH SPROULS of the committee having in charge the arrangements for the open meeting which was celebrated at the Public Service Gas Co.'s building,

JOSEPH A. SPROULS, JERSEY CITY, N. J.

Jersey City, N. J., upon the evening of Feb. 20, 1913, should feel proud of the success which met the efforts of the Jersey City association to inject some life into the situation.

Invitations had been distributed generously, and at 8:30 o'clock there were upwards of 100 persons in the capacious rooms upon the top floor of the Public Service Gas Co.'s building. The State Board of Master Plumbers had met earlier in the day, and these distinguished officials were present as well.

The object of the meeting was announced, to wit, the securing of new members. The advantages of this purpose were pointed out cogently and reasonably by the many speakers of the evening, and as a result a number of applications from reputable and responsible master plumbers not previously affiliated with the organization were secured. The Jersey City association has never been in healthier condition than at present, and their splendid efforts to secure new blood will assuredly place its membership at the high water-mark this year.

In addition to the business which was conducted there was a smoker for the entertainment of the many guests of the association. This was indeed an enjoyable feature of the evening. Cigars were freely distributed, and in addition a souvenir, a useful article for smokers a cigar holder was distributed. This was mightily appreciated.

Among the many orators of the evening was the newly elected president of the Jersey City Association, A. E. Becker; Louis Menegaux, Hoboken, vice-president of the New Jersey State Association of Master Plumbers; National State Vice-President Harry J. Farrell, Camden; National Director Robert Quinn, Paterson; former State President George S. O'Neil, Paterson; Vice-President Joseph Sprouls, who engineered the deal; former State President Edson Garrabrant, Orange; State Trustee J. J. Turbett, Newark, and State Trustee Wm. Storms, Lakewood, N. J.

President George Turner, Asbury Park, told of the advantages of membership. The protection to the trade which has been won by the association workers, and without whose work it would be a perilous occupation to be engaged in. As a matter of fact the position of the master plumber would be untenable without the organization. Instead of being merchants, the master plumbers would only deal in labor. Mr. Turner complimented the executive board for the general ability and splendid cooperation of its members. He spoke of the importance of attending meetings regularly, and the day that he joined the master plumbers' association he considered the best day's work of his life. At meetings the exchange of experiences with the fellow members and the counsel to be secured from the older heads, presents educational features of real value.

State Secretary Harry F. Baillett, Newark, N. J., a conscientious and perennial organization worker, interestingly lent his judgment and experience to the situation. In fact the array of talent was remarkable. So many merchant plumbers explaining the advantages commercially, socially and fraternally could not well be expected to fail in delivering the message. The light has been spread, and the impetus given the Jersey City master plumbers will encourage the members to renewed efforts to attract all the eligible master plumbers in the city.

When the business portion of the evening had been dispensed with the various articles which were upon exhibit were looked over by the many members and their guests. There were upwards of $75,000 worth of appliances, a study of which, with the explanations, so generously given, proved an education in itself.

Votes of thanks were extended the committee of which Mr. Sprouls was chairman; the Public Service Gas Co. for their uniform courtesies and consideration; the non-members for their attendance, and the members of the trade press.

THE MERCHANT PLUMBER AND FITTER is duly grateful for the courtesies extended its representative, C. P. Howley.

SAND HOLES? NEVER!!

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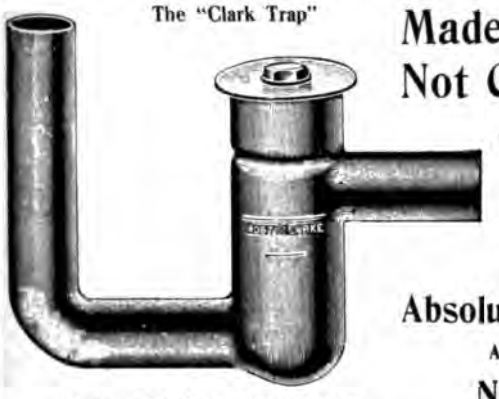

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116 Nassau Street
New York City

Greater New York News.

AMONG the busy Manhattan plumbers may be mentioned the firm of Bilsky & Hughes, of 143 W. 135th St. Aside from their local business they have a large contract in the Summer colony at Rockaway which will keep them busy up to May.

William Beck, formerly of 979 Third Ave., Manhattan, has moved into larger and more commodious quarters at 214 E. 58th St.

The Altman Plumbing Co., of 324 E. 6th St., Manhattan, is kept on the jump these days. Besides its many operations on hand in Manhattan, it has two large plumbing contracts on Staten Island.

BRONX.

ELLIS L. WITHERS & CO., of Southern Boulevard, Bronx, the well-known plumbing contractor, has been in that line of business close to a quarter of a century.

He started in New York City and remained there until six years ago, when he saw the great possibilities of the great North Side and made his home on Faile St. He bought a house at No. 889. During his stay in Manhattan, Withers did all the plumbing work on the Murray Hill Hotel, the Vendome, the Buckingham, Marlboro, Plaza, Royalston, and did all the sheet iron work on the Metropolitan Opera House.

During the year 1911 Mr. Withers held office on the executive committee of the East Side Property Holders' Association. Since his advent to the Bronx Mr. Withers has made many friends and has been very successful in securing a large number of contracts for new work and also considerable work as a jobber.

Besides plumbing, a large amount of tinsmith work is done, also gasfitting, ventilating and roofing. All the requirements of the Health and Building Departments are strictly adhered to.

Mr. Withers thinks there is a great future for the Hunts Point section.

James A. Stengle, of 1161 Intervale Ave., Bronx, is finishing up a large heating contract at Highbridge and keeps six men busy on repair work.

BROOKLYN.

Julius Laube, a plumber of 462 Glenmore Ave., Brooklyn, N. Y., died at the Bellevue Hospital Feb. 15 of what is known as the Hotchkiss disease, a rare complaint. He was 42 years old, and is survived by a widow and two children. He was widely quainted in German singing circles.

QUEENS.

Five Suits Brought by Edward J. Murphy in Supreme Court for Injuries.

WITH the suit of Edward J. Murphy, a plumbing contractor of Jamaica, N. Y., against the Long Island Electric Railway Co., five separate and distinct actions are being tried in one. All of the actions arise out of the same accident, and Murphy is bringing two of the suits as guardian of his children and three of them for his own personal loss, sustaned in three different capacities.

On Oct. 4, 1910, Murphy was driving a wagon. On the seat beside him were his two children, Edward, Jr., 10 years old, and Olive, seven years old. As they were crossing at the intersection of Jamaica Ave. and Fulton St., Jamaica, a trolley car struck the wagon and pitched them all out. Murphy's foot caught in the spokes of the wheel, and when the horse bolted his left leg was broken. Both children were badly bruised.

Then Murphy sued for damages. He sued for his own personal injuries, he sued as guardian of his son, he sued as guardian of his daughter, he sued for the loss he himself had sustained by reason of the loss of services of his son, and he sued for the loss of services of his daughter. Alarmed at such a multiplicity of actions brought in the name of one man, the railway company admitted its liability. The question of the amount of damages, however, it wanted tried by a jury. The trial is now on, and is watched with keen interest by the court attendants, who want to see if a man gets five times as much money for bringing five actions as he would for bringing one.

Large Contracts Completed.

JONES, KOEHNLE & CO., of Lincoln, Ill., have just completed the plumbing, heating and ventilating of the South Hospital of the Lincoln State School and Colony.

This is the largest contract of its kind ever awarded a local firm in that city, the amount of the contract being nearly $9,000.

The method of heating and ventilating used in this building is somewhat new in this vicinity, being the only one of their respective kinds in the county.

The fresh air for ventilating the various rooms is admitted through an opening in the basement, drawn through the heating coils and heated to 70 degrees Fahr. After being heated, this tempered air is forced through galvanized ducts by a 70-inch Sturtevant fan, capable of delivering 6,500 cubic feet of air per minute, driven by an electric motor, making 880 revolutions per minute. The air after leaving the fan is controlled by volume dampers, delivering the required amount of air to each room through the diffusers.

The foul air being taken out of the rooms by a fan in the attic and discharged through a Burt ventilator in the roof. This system of ventilation is strongly advocated by the leading authorities on ventilating throughout the country, being particularly adapted to the ventilating of hospitals, schools and public buildings.

The heating system is what is known as a vacuum system, using seal motors on each of the 96 radiators. A few of the most noticeable features of this system being its uniformity of heat, the elimination of air valves which constantly have to be regulated and invariably cause a good deal of annoyance and the conspicuous absence of any hammering noise.

By this system the building can be heated with two pounds of steam, the vacuum gauge registering 10 inches. The reduction in size of pipe is also in its favor.

Banquet of the Pittsburgh Association.

THE Master Plumbers' Association of Pittsburgh held its second annual banquet in the Fort Pitt Hotel, Pittsburgh, Feb. 17, 150 members and their wives and families being present. C. K. Will, of Lancaster, Pa., president of the Pennsylvania State association, made an address on "Our Association." Others who spoke were Jacob Soffel, F. J. Hanley, John Kane and A. S. Whitehead. S. S. White was toastmaster.

Successors to the Celluvarno Co.

THE Sillcocks-Miller Co., of South Orange, N. J., has purchased the business of the Celluvarno Co., Inc., of Newark, including all rights, patents, trade-marks and equipment.

It will be their aim to maintain the same superior quality of "Celluvarno" products which, for the past twelve years, as manufactured under the patents and the personal direction of the late Edgar M. Joralemon, have been a standard of high grade sanitary toilet and bath room accessories.

The goods will continue to be known by the registered trade-mark "Celluvarno," and the Sillcocks-Miller Co. shall endeavor to retain the confidence and good will of the trade which the reputation of these goods now enjoys.

Wisconsin Notes.

MAYOR G. A. BADING, of Milwaukee, Wis., has directed the public works department to prepare plans for a comfort station at the Grand Ave. bridge. Funds for the purpose not to exceed $5,000 probably will be included in the budget.

Arthur Kusel will hereafter conduct the plumbing business of Kusel & Kusel in W. Main St., Watertown, Wis.

Columbus Master Plumbers Listen to Address by Chicago Man.

MASTER PLUMBERS of Columbus, O., were told on the night of Feb. 13 by Judge C. H. Ripley, of the American Radiator Co., Chicago, how they could avoid failure. Successful business methods in figuring bids, the cost of material, overhead expenses and profits were outlined to them. The address, which was delivered at the Builders and Traders' Exchange, was filled with statistics from Bradstreet's agency, which told of the failures in 1910, 1911 and 1912.

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Have you had trouble with check valves—hot water circulating into cold? If so, use our figure 108 on your next job of four-valve showers. This is our leader.

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WOOD PATTERNS AND MODELS
Made by us will satisfy YOU and please your foundry.
SPECIALISTS ON PLUMBING AND STEAM MATERIALS
On Time Deliveries — Prices Reasonable
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F. R. LAWLER, DRAFTSMAN
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NEW AND ALTERATION WORK, HEATING SYSTEMS, DEVICES ILLUSTRATED. IN FACT, DRAWINGS OF ANYTHING.
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Manufacturers of Everything in
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Galvanized WASHTUB COVERS
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F. N. PROCTOR, who was formerly in the plumbing business in West Somerville, Mass., is now located in Kansas City, Mo., where he is head inspector of plumbing.

The J. J. Powers Plumbing Co., of Brockton, Mass., has started work on the plumbing in the new high school at Whitman and the plumbing at the Home National Bank is going ahead rapidly. It has just completed a large contract at a school in Hingham.

The number of plumbing permits granted by the inspector of plumbing of Northampton, Mass., was 161 additional, 26 alterations; new, 60; total, 267. Number of permits granted and work done when drainage was connected to the public sewer, 248; when drainage was connected to private drains and cess pools, 19; total, 267.

Owing to the rapid growth in his business, the heating and ventilating firm with which Mayor Stone, of Quincy, Mass., is connected, the Stone-Underhill Co., has moved the Boston office from 17 Milk St. to 139 Pearl St., where it has taken an entire building.

John Burke & Son have laid cement floors in the basement of the Red Men's building at Wareham, Mass. J. C. Trefethen & Co. have the contract for installing an additional heater, and Alex Hunter has the plumbing contract.

The contract for the plumbing in the business block on Main St. near Fairfield Ave., Bridgeport, Conn., has been awarded to Carlson & Benson.

Hammer Bros., of Great Barrington, Mass., have been awarded the contract to do the plumbing in E. D. Balken's new home near North Egremont.

The committee on public property, of Taunton, Mass., on Jan. 21 awarded a contract for the plumbing and changes in the accommodations for the officers at the Weir police station to I. F. Whitmarsh.

An addition to the Hartford, Conn., official literature is a pamphlet, which has just been issued, which gives the ordinances adopted since the revision of 1908, the last ordinance included in the publication being one relating to the licensing of plumbers, which was approved Oct. 29, 1912.

A new tinning and plumbing company has located in Liberty St., Southington, Conn., and will soon open for business. The young men are from Meriden and will open an office in the front of the new building.

C. C. Coates, of Northampton, Mass., has the contract for the heating and plumbing plants in the new Mount Sugar Loaf school house which is to be built at South Deerfield this Spring. The school is planned to accommodate 350 pupils.

Arthur J. Sanford, of Marblehead, Mass., has the contract for the new heating plant for the new Olympic Theater being constructed in Salem. The plant has arrived and will be installed right away. He has just finished the steam piping for the new 2,000,000-gallon pump at the pumping station.

A new steam heating system, with a vacuum exhaust attachment, is being put into the factory of the Arthur T. Way Co., Inc., on Boston St., Salem, Mass., by Gramam, Dow & Co., Boston.

Gatzke & Kindler, plumbers, with a store in the Bates block on School St., Webster, Mass., have dissolved partnership, Otto J. Gatzke buying out the interests of his partner, and he will conduct the business alone. The firm is one of the leading among plumbing contractors of southern Worcester County, and has been in business about eight years.

James C. Coffee, of Worcester; C. R. Felton, of Brockton, and Edward C. Kelly, of Boston, the State examiners of plumbers, gave an examination to twenty-eight applicants for plumbers' licenses at the city hall at Pittsfield, Mass., Jan. 18. Edward C. Kelly conducted the practical part of the examination in the basement of city hall.

No Controversy for Three Years.

THE wage controversy between plumbers of Boston and their employers was definitely decided Feb. 4 when the members of the union accepted all agreements made between their conference committee and the master plumbers. By these agreements the plumbers will receive a wage of $4.80 a day until July, when a wage scale of $5 a day goes into effect. On Jan. 1, 1914, the master plumbers agree to pay $5.20 per day on a two-year contract. By these terms there can be no wage controversy for the next three years.

Boston Master Plumbers' Ball.

THE annual reception and ball of the master plumbers of Boston and vicinity will be held Tuesday evening, March 25, in Paul Revere Hall, Mechanics building. Extensive arrangements are being made by the committee in charge to make this the finest affair in the history of the association.

Connecticut State Association to Meet in Hartford in May.

AT a meeting of the board of directors of the Connecticut State Association, held in New Hoven on Feb. 13, Hartford was selected as the next place of meeting on May 14. The arrangements were left in the hands of a committee of the Hartford local association.

Bemis Made Vice-President.

INSPECTOR OF PLUMBING REUBEN S. BEMIS, of Providence, R. I., was elected vice-president of the New England Association of Plumbing Inspectors at the annual meeting of the organization at the Elks' Club, Boston, Saturday, Jan. 25.

Mr. Bemis read a paper on "The Development of the Sanitary Engineer" before the association. Horace B. Holland, William H. Canfield and Michael J. Carbon, of Mr. Bemis' office, attended the meeting with him.

R. Maitland & Son to Install Shower Baths in the Clinton, Mass., High School Gym.

THE contract for installing shower baths in the high school gymnasium was awarded to R. Maitland & Son by the school committee on Jan. 13. The Clinton Concrete Co. was awarded the contract to lay a granolithic floor in the gymnasium and to build stalls of the same material to separate the baths. The committee found on investigating the matter thoroughly that solid granolithic slabs for the stalls would be more serviceable, and yet not so expensive, than to use slabs of either marble or slate.

Frederick L. Murphy, inspector of plumbing, will have general supervision of

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the work. The specifications call for the valves to be installed on the sides of the stalls rather than on the back. Inspector Murphy claims this to be better. A person before taking a bath can regulate the water to his satisfaction without stepping under the shower and getting wet. It is probable that the work will be completed in a few weeks. The showers will be connected in such a way that if at some future time it is desired to install more it can be done without affecting any of the system.

Brunelle Business Sold.

THE business of the Brunelle Boiler Co., 10 Coburn Ave., Worcester, Mass., manufacturer of the Brunelle steam heater, has been sold to a Canadian syndicate with a capitalization of $100,000, and will be removed to Three Rivers, P. Q.

The officers of the Canadian company are: President, Joseph A. Jutras; vice-president, John Boisvin; secretary-treasurer and general manager, Arthur Heroux; auditor, J. B. Godbout.

Bridgeport Health Board Favors Raise.

THE proposition to increase the salary of Dr. E. A. McLellan, city health officer, of Bridgeport, Conn., from $1,500 to $2,000 received the unanimous endorsement of the Board of Health at its meeting Feb. 11. Commissioner W. J. McLaughlin introduced the following resolution, which was passed, and it will be forwarded to Senator Joseph Whitcomb, who introduced the proposed amendment to the city charter:

Whereas, The duties of the city health officer of the city occupy at all times his entire attention, and

Whereas, Said duties have been multiplied from time to time by various changes in the law, ordinances and direction of this board, and

Whereas, A bill has been introduced in the General Assembly amending the charter of the city of Bridgeport to increase the annual salary of said health officer from $1,500 to $2,000 per annum, therefore be it

Resolved, That this board deems the present salary of the health officer inadequate compensation for the duties performed, and is heartily and unanimously in favor of the increase in salary and the amendment to the charter making such increase.

PLUMBERS APPEAL.

There was a delegation received from the Bridgeport Plumbers' Union asking for co-operation and appearance before the Common Council Feb. 10 in support of an ordinance appointing a practical man as a plumbing inspector in the city and the institution of a plumbing inspector's office, either in connection with the building inspector's or Board of Health's office.

The four delegates made a forceful appeal and pointed out that in not a few houses plumbing is a menace to health. That they would like to take the commissioners into some of the houses and show them, was a point brought out. That they were supporting no special man and have considered none was their contention. But they did support the selection of a good practical man and believed that there is much opportunity for him to do excellent work and be of much benefit to the city. It was pointed out that there is considerable cheap plumbing work, that there has to be on account of the keen competition.

They said that they have no preference as to who the inspector should work under, but it was suggested that he work under the direction of the Board of Health, the same as in Detroit, where the work is very successful. Numerous precedents were cited and experience in New York, Detroit and other cities. The commissioners approved of the scheme and expressed the opinion that support will be given.

Maine Master Plumbers.

THE mid-Winter meeting of the Maine State Association of Master Plumbers was held Jan. 30 in Augusta. A fair representation of the plumbers of Maine were present, but the attendance was not so large as usual at the Summer meetings.

After the reports of the president and secretary had been read, the officers for the year of 1913 were elected as follows:

President, F. E. Wheeler; vice-president, C. H. Babb; treasurer, D. A. Calhoun, and secretary, J. E. Donovan; executive committee, E. W. Karrigan, of Lewiston; A. Anthoin, of Biddeford; Roscoe Hanson, of Waterville; C. Madison, of Woodfords, and W. A. Stewart, of Livermore Falls.

It was voted to have the Summer meeting at Gurnet, and the following entertainment committee to have charge of this affair was elected: E. M. Goss, of Lewiston; C. F. Eaton, of Brunswick, and Charles Dolliver, of Lewiston.

Springfield, Mass., Master Plumbers' Banquet.

ABOUT 100 covers were laid for the 26th annual banquet of the Springeld Master Plumbers' Association in the Highland Hotel on the evening of Jan. 28. The toastmaster was John W. Kennely, chairman of the Police Commission, and among the speakers were Building Inspector Fred W. Lumis, Plumbing Inspector Frank W. Tower, T. J. Collins, of Northampton; Plumbing Inspector Avery, of Holyoke; George Smith, Assistant Plumbing Inspector Ernest G. Bates, T. J. Ryan, Mr. Bicknell, Mr. Downes and Daniel McCarthy, of the journeymen's union. Cox's orchestra furnished music. A short business meeting was held and the following officers were elected: President, J. G. Howland; vice-president, H. W. Lloyd; secretary, John Davis; treasurer, L. W. Dunlap.

The plumbing firm of Rose & Payne, of Chickashaw, Okla., has dissolved partnership. Charlie Rose will continue business.

Salt Lake City Plumbing Inspector Calls Attention to Master Plumbers' Comments.

SANITARY conditions in Salt Lake City, Utah, are far above the average from the standpoint of plumbing, according to the report of the sanitary committee of the National Association of Master Plumbers, which is included in the annual report of Frank Moyle, city plumbing inspector, filed with the city recorder Jan. 21.

This report, based on inspections made while the master plumbers were in session here, congratulates the city on its cleanliness and sanitation in plumbing. Also it points out the necessity of public comfort stations to be built in the business district.

In his own report Mr. Moyle presents tables of figures showing exceptional increases in the amount of plumbing work done during 1912 as compared to 1911. A total of 1,792 plumbing permits was issued during the year, as compared to 1,349 for 1911, an increase of 443. The total sewer permits were 1,493, as against 1,142 for 1911, so that the total increase in permits granted by the plumbing department was 794, which is said to indicate a corresponding increase of building activity.

A total of 5,970 plumbing fixtures was installed during the year, an increase of 2,183 over that of 1911 and representing a cost of $375,000, as agaijnst $225,000 for the previous year.

According to the records of the plumbing inspector, there are 59 licensed plumbing firms in the city paying $25 yearly license and under a $10,000 corporate bond. These firms employ 400 men, who receive from $2 to $6 a day.

The budget for 1912 was $3,950 and the expenditures totaled $3,437.29, showing a decrease in the expense of $712.50 as compared to 1911. The increase in revenue for 1912 was $794.

An additional deputy to aid in the inspection work is urged as a necessary expense for the new year, and provision for such an appointment is contained in the inspector's budget recommendations for 1913. He asks for $4,268.

Beloit Plumbing Co. Will Move from Court Street into Old Drinkern Stand on Mill Street.

THROUGH a business deal consummated Feb. 3 Swan Nelson, of the Beloit Plumbing Co., of Beloit, Kans., becomes owner of the stock of goods and business of W. W. Baker & Co., on Mill St., and he has assumed charge of the store. It is the intention of the new firm to move from Court St. into this new location, which is better known as the Drinkern stand, and in the future conduct the business there. The Beloit Plumbing Co. by this increase in its facilities and increased store room will be much better able to carry on its business, which was necessarily curtailed because of a lack of room in the old stand.

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OBITUARY

Henry C. Phelps, of Lee, Mass.

Henry Clay Phelps, 68 years old, one of Lee's foremost citizens, died in the Carney Hospital in Boston, Jan. 17, following an abdominal operation of a few weeks ago.

He was born in the house he lived in, succeeded his father in the plumbing business, went into the Thistle Wire Co., served in the Legislature in 1885, was Selectman of Lee for several years and had been an associate county commissioner.

As Associate Justice of the District Court he won international fame by imposing a fine on a British subject, Hugh Guerney, secretary to the British Ambassador. The survivors besides his wife are a son, Albert C. Phelps, of New York; a daughter, Miss Clara Phelps, of Boston; three sisters and one brother.

Charles E. West, Pittsburgh, Pa.

Charles E. West, aged 60, died at the residence of his sister, Mrs. S. A. Voorhees, 240 Meyran Ave., Pittsburgh, Pa. Mr. West was born in Mifflin township, and spent the greater part of his life in Pittsburgh. He was in the plumbing business in Pittsburgh for a great many years. He was a member of the Elks. Two sons, Charles and William West; four brothers, John C., George L., Aaron D. and James L. West, and one daughter, Mrs. S. A. Voorhees, survive.

John N. Phelps, New Haven, Conn.

John N. Phelps, who for years conducted a plumbing business in New Haven, Conn., died suddenly at the West Haven Sanitarium, Jan. 29, of pneumonia. Mr. Phelps was very well known in New Haven and had a host of friends, both in business and in political circles, where he was beloved by every one who came in contact with him. He had a charming personality, which endeared him to all his friends and did much to add to his success in business. He is survived by his wife, two daughters, the Misses Grace, who is well known in elocutional circles, and Avis, a mother, two brothers and one sister. The funeral took place Friday afternoon, Jan. 31, at 2.30 from his late residence, 10 Kensington St.

John R. Cummings, New York.

We regret to announce the death of John R. Cummings, a loyal member of the Manhattan branch of the New York Master Plumbers' Association.

Services were held from his late residence, 2040 Seventh Ave., on Saturday evening, Feb. 22.

August P. Froelich, Philadelphia, Pa.

On Friday, Feb. 7, there departed from this life August P. Froelich, senior member of the firm of Froelich Bros., well known as jobbers of plumbing and heating supplies, 142 N. 7th St., Philadelphia.

Mr. Froelich was 55 years old and had been associated with the plumbing-supply business since his early youth. He was first connected with the old firm of C. A. Blessing, 44 N. 5th St. In 1884 he embarked in business on his own account with his brother William at 27 N. 7th St., and had ever since operated the business, which is now conducted at 142 N. 7th St.

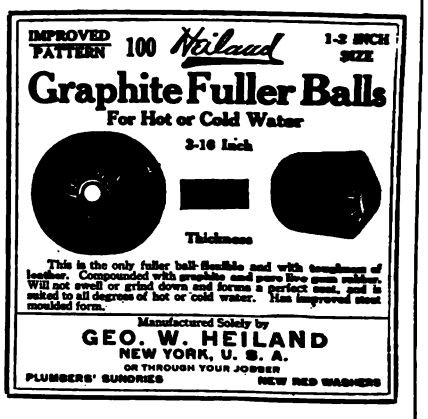
Mr. Froelich is survived by a widow, a son and three daughters, and by his brother, William Froelich, who has been associated with him in business for over 28 years.

A Prominent Maine Master Plumber Drops Dead.

SEIZED with sudden illness while he was walking on Cumberland Ave. near Elm St., Portland, Me., Jan. 21, Charles M. P. Steele died within a few minutes. He was seen to stagger and fall and help was immediately summoned, Dr. W. G. Jefferson, of 346 Cumberland Ave., arriving in a very short time. When Dr. Jefferson examined Mr. Steele he found that life had left the body. There was no sign of pulsation or respiration nor could any be induced by artificial means which were employed. The police ambulance which had been summoned carried the body to Mr. Steele's late residence at 63 Myrtle St. Coroner Fred W. B. Martin was called and after viewing the body he deemed an inquest unnecessary, death having been due to natural causes. The deceased was 47 years of age.

Mr. Steele was connected with the firm of C. M. & H. T. Plummer, dealers in plumbing and steamfitting supplies on Union street.

Correct Shape.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definition of a community is a body of men who have things in common, who are conscious that they have things in common, who judge these common things from a single point of view, namely, the point of view of general interest. Such a thing as a community is unthinkable, therefore, unless you have close communication; there must be a vital interrelationship of parts; there must be a fusion; there must be a coordination; there must be a free intercourse; there must be such a contact as will constitute union itself before you will have the true course of the wholesome blood throughout the body.

When you analyze some of our communities you will see just how necessary it is to get their parts together. Take some of our great cities for examples; do you not realize, by common gossip even, the absolute disconnection of what we call their residential sections from the rest of the city? Isn't it singular that, while human beings live all over the city, we pick out a place, a place where there are luxurious and well-appointed houses, and call that the residential section, as if nobody else lived anywhere in that city? That is the place where the most disconnected part, and in some instances the most useless part, of the community lives. There are connecting links; here and there a gracious woman, here and there a bighearted man, who go every day they can find the leisure down into the tenement district, into parts of the city where hearts throb closest together, and they bring back notes to the residential section of what is going on there where men are in hot contact and where life is a constant daily struggle.

Class segregation is due to what to my mind is the most undemocratic thing in the world, and that is taste. Private, sensitive taste separates most of us. If you don"t like dirt, if you dont like rooms that are not properly appointed, if you don't like stale air, if you don't like manners that are not like you own, then you have a wall built between you and the people who live where they cannot keep their premises clean, where all the conditions of life exclude taste. That is what separates thousands of men from the millions of their fellow men. I am not speaking of these things to impeach a class—for I know of no just way in which to impeach a class—but merely to illustrate a theme; it is necessary that such portions of the community should be linked with the other portions; it is necessary that simple means should be found by which by an interchange of points of view we may get together. The whole process of modern life, the whole process of modern politics, is a process by which we must exclude misunderstandings, exclude hostilities, exclude deadly rivalries, make men understand other men's interests, bring all men into common counsel, and so discover what is the common interest.

Now, if this thing does that it is worth any effort to promote it. Don't you see that you produce communities by creating common feeling? I know that great emphasis is put upon the mind in our day, but I have never been convinced that mind was really monarch in our day, or in any day that I have yet read of; or, if it is monarch, it is one of the modern monarchs that rules and reigns but does not govern. What really controls our action is feeling; we are governed by the passions, and the most that we can manage by all our social and political endeavors is that the handsome passions shall be in the majority—the passion of sympathy, the passion of justice, the passion of fair dealing, the passion of unselfishness. If you can once see that a working majority is obtained for the handsome passions, for the feelings that draw us together, rather than for the feelings that separate us, then you have laid the foundation of a community and a free government. Therefore, if you do nothing else in your community center than draw men together so that they will have common feeling, you will have set forward the cause of civilization and the cause of human freedom.

The fundamental characteristic in modern life, as I analyze it, is a profound ignorance. I am not one of those who challenge the promoters of special interests on the ground that they are malevolent, that they are bad men; I challenge their leadership on the ground that they are ignorant men. A witty English writer once said: "If you chain a man's head to a ledger and knock off something from his wages every time he stops adding up, you can't expect him to have enlightened views about the Antipodes." Similarly, if you immerse a man in a given undertaking, no matter how big that undertaking is, and keep him immersed for half a lifetime, you can't expect him to see any horizon; you can't expect him to see human life steadily or see it whole. I once made the statement that a university was intended to make young people just as unlike their fathers as possible. By which I do not mean anything disrespectful to their fathers, but merely this—that by the time a man is old enough to have children in college his point of view is apt to have become so specialized that they better be taken away from him and put in a place where their views of life will be regeneralized—where they will be disconnected from the family and connected with the world.

And so it seems to me that what is going to be produced by this movement—not all at once, by slow and tedious stages no doubt, but nevertheless very certainly in the end— a release of common forces now undiscovered, the removal of barriers to the common understanding, the opening of mind to mind, the clarification of the air and the release in that clarified air of forces that can live in it. Just so certainly as you release these forces you make easier the fundamental problem of modern society, which is the problem of accommodating the various interests in modern society to one another.

You say, and all men say, that great political changes are impending in this country. Why do you say so? Because everywhere you go you find men expressing the same judgment, alive to the same circumstances, determined to solve the problems by acting together, no matter what older bonds they may break, no matter what former prepossessions they may throw off, determined to get together and do the thing. You know that changes are impending because what was a body of scattered sentiment is now becoming a concentrated force. So with sympathy and understanding comes control, for in place of this control of enlightened and sovereign opinions we have had in the field of politics, as elsewhere, the reign of management, and management is compounded of these two things, secrecy plus concentration. You cannot manage a nation, you cannot manage the people of a State, you cannot manage a great population—you can manage only some central force. What is done, therefore, by those who want to manage in politics or anywhere else is to choose a great single force or single group of forces, and then find some man or men sagacious and secretive enough to manage the business without being discovered. And that has been done for a generation in the United States. Now, the school house, among other things, is going to break that up. Is it not significant that this thing is being erected upon the foundations originally laid in America, where we saw from the first that the school house and the church were to be the pillars of the Republic? Is it not significant that, as if by instinct, we return to those sources of liberty undefiled which we find in the common meeting places, in the places owned by everybody, in the places where nobody can be excluded, in the places to which everybody comes as by right?

And so what we are doing is simply to open what was shut, to let the light come upon places that were dark, to substitute for locked doors open doors; for it does not make any difference how many or how few come in, provided anybody who chooses may come in.

I do not wonder that men are exhibiting an increased confidence in the judgments of the people, because wherever you give the people a chance, such as this movement has given them in the school house, they eagerly avail themselves of it. This is not a false people, this not a people guided by blind impulses; this is a people that wants to think, that wants to think right, whose feelings are based upon justice, whose instincts are for fairness and for the light, and wherever you give them the chance they avail themselves of it. So what I see in a movement like this is a recovery of the constructive and creative genius of the American people. I have often thought that we overlook the fact that the real sources of strength in the community come from the bottom. Do you find society renewing itself from the top? Don't you find society renewing itself from the ranks of unknown men? Do you look to the leading families to go on leading you? Do you look to the ranks of the men already established in authority to contribute sons to lead in the next generation? They may, sometimes they do, but you can't count on them; and what you are constantly depending on is the rise out of the ranks of unknown men, the discovery of men whom you had passed by, the sudden disclosure of capacity you had not dreamed of, the

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Architectural Catalogue maintained in the Building Trade Catalogues. (A. B. C. system—Section 35-B; Catalogue 5)

emergence from some place of which you had thought the least of some man to do the thing that the generation calls for. Who would have looked to see Lincoln save a nation? Who that knew Lincoln when he was a lad and a youth and a young man? But all the while there was springing up in him, as if he were connected with the very soil itself, the sap of a nation, the vision of a great people, a sympathy so ingrained and intimate with the common run of men that he was like the people themselves, impersonated, sublimated, touched with genius; and it is to such sources that we must always look.

No man can calculate the course of genius or foretell the leadership of nations. So we must see to it that the bottom is left open; we must see to it that the soil of the common consciousness is always fertile and unclogged, for there can be no fruit unless the roots touch the rich sources of life. And it seems to me that these school houses, dotted here, there and everywhere over the great expanse of this nation, will some day prove to be the roots of that great tree of liberty which shall spread for the sustenance and protection of all mankind.

Plumbers and the State Board.

THOMAS J. CLAFFY, Chief Plumbing Inspector of Chicago, Ill., in a recent interview in regard to the advisability of having the State Board of Health represented by a member of our trade, has this to say:

"The necessity of reorganization of the boards of examiners of plumbers throughout the State is recognized by every plumber, sanitary engineer and inspector in Illinois.

"The whole theory of the building laws of the State, as regards ventilation, plumbing and drainage in buildings, is based on the assumed powers of the State Board of Health. It was evidently the theory of the legislators in drafting the laws upon which boards of health have been organized that the municipal health department derives its power from the State Board of Health. That such is not actually the case is well known to municipal inspectors of plumbing or of buildings.

"The boards of examiners of plumbers throughout the State are in no way controlled by or subject to the State Board of Health; in fact, they are several members of equal rights, functions and responsibilities acting without a head. Each one is independent of the other, has equal powers with the other and the plumber who obtains a certificate in any small town in the State from such a board has the right to work as a plumber anywhere within the State. This leads to the abuse of the rights conferred by such certificates. If Mr. Jones is denied a certificate by reason of his unfitness as a plumber in Peoria, Chicago or Springfield he may go to the nearest small town, where the requirements are not apt to be so rigid, and successfully pass an examination and flaunt his certificate before the board which turned him down previously and who may be honestly trying to do the things contemplated under the law to protect the public health.

"It has long been the settled conviction among plumbers that a change is necessary and many schemes have been considered to bring about a more uniform system among boards of examiners of plumbers and concentration of power and authority. It appears that one of the most desirable things is the establishment of authority within the State Board of Health to apply to plumbing, house drainage, light and ventilation within buildings. This would necessarily bring with it a provision in the law which would make all boards of examiners of plumbers subject to the authority of the State Board of Health. By such a scheme the State board would pass upon all applicants for plumbers' certificates. This would eliminate any question of jurisdiction and by a proper system of records would prevent any crooked work in examinations.

"The time has come when a State inspector of plumbing will be necessary on account of the increased installation of plumbing fixtures in rural districts. The State of Ohio has made progress in this direction and is about to amend its laws so as to better organize the work of the State inspectors and clear up differences between the statutes and municipal ordinances of cities like Cleveland. It is desirable that a man with the broad knowledge and experience of a sanitary engineer should be a member of the State board to act in conjunction with such a board in all measures for the conservation of public health and to exercise jurisdiction over State boards of examiners of plumbers, and if a State inspector is appointed the services of such a man will be necessary at all times for the determination of questions of waste disposal, water supply and drainage. The question has been discussed and it appears that a recommendation will be forwarded to the effect that a plumber be made a member of the State Board of Health. We have no fault to find with such an appointment, provided, however, that the candidate can meet all the requirements mentioned. The essential thing is that a man of broad knowledge and experience and with the double qualifications of diplomacy and common sense be selected."

The First Enameled Tub Made on the Coast.

THE first enameled bath tub to be manufactured on the Pacific Coast was turned out Feb. 12 at the plant of the Pacific Sanitary Mfg. Co., of Richmond, Cal., when the process of enameling the bath tubs which the big new industry will turn out was tested out on the first bath tub to be made by home industry.

Manager Franks, of the local plant, invited a number of friends and company officials to watch the making of the first bath tub turned out by the new plant, which is the only one of its kind on the coast, and the process was of a most interesting character.

The machinery used in the process was found to be in the proper order and the company will soon be able to turn out the full capacity in this line of manufacture. It is already engaged in turning out many other lines of enameled and porcelain ware.

Mystery of Lethal Bathroom Puzzles Doctors and Plumbers in Williamsport—Death Lurks Within Walls.

DOCTORS, plumbers and gas men are puzzled over the mystery of a bathroom at the home of Mrs. Ida Vernes, on Maple Pl., Williamsport, Pa., where two persons have died suddenly and several have been found unconscious within the last two years.

The latest victim of the "hoodoo" room is John Van Gorder, a Northern Central bathroom and shortly afterward heard house and was found unconscious on the floor. Mrs. Vernes heard him enter the bathroom and shortly afterward heard water flowing into the bathtub. The water continued running so long that Mrs. Vernes became alarmed. Going to the door, she called to the man, but received no answer. Summoning neighbors, she battered down the door with an axe. Van Gorder was apparently lifeless, but after an hour's work was revived. He says that a moment after he went into the room, a strange feeling came over him, as if some one struck him on the head with a club. That is the last he remembers.

The mystery of the bathroom began two years ago, when Mr. and Mrs. Albert Munroe, relatives of the Vernes, were found dead in their bedroom. They had been married but a week and were alone in the house at the time of the tragedy. The door of the bathroom, which is near the bedroom, was open and the bath tub was partly filled. The coroner pronounced death due to heart disease.

A month ago Miss Edith Warner, of Harrisburg, a niece of Mrs. Vernes, while visiting at th Vernes home, was overcome by a mysterious illness while taking a bath, her condition being discovered just in time to save her life. Two weeks ago Clement Gustom, a boarder, had a similar experience.

There is a gas connection that heats the water in the tank and physicians think this may have caused the trouble, but in one instance the window of the room was open and in another the person was stricken before the gas flame was on. Mrs. Vernes declares she will solve the mystery by dismantling the room.

Richmond Radiator Co. Buys Property.

THE Richmond Radiator Co., a corporation organized under the laws of Delaware, with principal offices at 1480 Broadway, New York, has acquired the factory of the Reading Radiator Co., situated at Front St. and Lebanon Valley Railroad, at Reading, Pa.

The managers of the new company in Reading will be Grant Nagle and D. L. Adams, who had charge of the radiator business heretofore.

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Noiseless Combination

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is giving the public what it wants—a silent working closet, of the best and quickest working syphon jet construction. This is being done at a reasonable price, a price which, when compared with the quality of workmanship and material, is absurdly low. The **"Si-wel-clo"** is only sold as a complete combination with China Tank and T.P.Co. Tank Fittings. As it is intended for residential use the plumber should endeavor to sell with it the **China Offset.**

Remember—We have created the demand, gone straight to the public and told them we had a noiseless working closet. Wherever sold it is giving satisfaction and repeat orders. It will sell itself for you too.

We want you to recommend it.

Send for circulars and roughing measurements on the Si-wel-clo. If you haven't applied for our new LM Catalogue do so. Address

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Trenton, New Jersey, U. S. A.

Downward Ventilation in a Rockford, Ill., Schoolhouse.

By CLINTON E. BEERY.

Read at the Annual Meeting of the American Society of Heating and Ventilating Engineers.

THE system of heating and ventilation for the Hall School building, Rockford, Ill., was designed by and installed under the supervision of the author last Summer, and has been in operation since the beginning of the last school year. In view of the generally accepted theories of heating and of the revolutionary tendencies in the method designed by the author, together with what appears on first thought to be a freaky arrangement, he desires to make a brief explanation, believing it will help to convey a clearer understanding of the theory on which this method, which will be referred to hereinafter as the new method, operates. Incidentally, he has applied for a patent on the system.

In the author's experience, based for the most part on practise and observation, he became impressed with the importance of saving, if possible, the great heat losses frequently found in fan-blast heating and ventilation, which seemed to him not only a waste, but actually a handicap to good results. With the knowledge that air of lower temperature and greater density always finds a position at the floor, and that higher temperatures prevail at the ceiling, he reasoned that, if the temperature near the ceiling could be controlled by some means other than the ventilating apparatus, the air customarily at a high temperature at or near the ceiling could be held to a minimum difference in temperature between the floor and the ceiling, and in this way a beneficial influence could be produced on the results obtained from the ventilating apparatus.

With this as a basis for his theory he arranged on Jan. 3, 1912, a regular school room, referred to hereafter as room No. 3, for experimental work to demonstrate his theory. Several other rooms in the building were operating as in general practise. This was the first season for the heating and ventilating system, and it was giving good results.

Room No. 3, which is in the northwest corner of the first floor, is the coldest room in the building. Room No. 8 is on the second floor, directly over room No. 3, and is an exact duplicate of it. Each of these rooms is 26 ft. by 31 ft., with ceilings 13 ft. 6 in. high. Each has 100 sq. ft. of glass exposure facing the west, and 50 sq. ft. of glass exposure facing the north. All windows are protected with wood grooved weather strips. These two rooms were operated the remainder of the heating season, and more or less careful observations of their operation noted.

During the early part of January a comparative test was made of the temperature in room No. 3 (the new method) and room No. 8 (the regulation method), with 60 sq. ft. of wall radiation in the northwest corner. The air delivery in the rooms was 1,544 to 1,560 cu. ft. per minute, measured at the exits. Twelve temperature readings were taken at 5-min. intervals in each corner of both rooms. Twelve readings of the temperature of the entering air were also taken at 5-min. intervals. The outside temperature at the time of the first reading was 2 deg. below zero F., and at the time of the last reading 3 deg. below zero F. An extremely cold west wind, estimated at 18 to 20 miles per hour, was blowing. The maximum and minimum temperature, Fahrenheit, of the 12 readings taken are given in the accompanying Table I:

TABLE I.—MAXIMUM AND MINIMUM OF ROOM TEMPERATURES DURING COMPARATIVE TESTS.

Room number.	Northwest corner.	Northeast corner.	Southeast corner.	Southwest corner.
3.....	70-67	71-70	70-68	69-67
8.....	83-80	70-68	69-66	69-66

VIEW TAKEN IN ROOM 20 SEC. AFTER STEAM WAS TURNED INTO FRESH AIR DUCT.

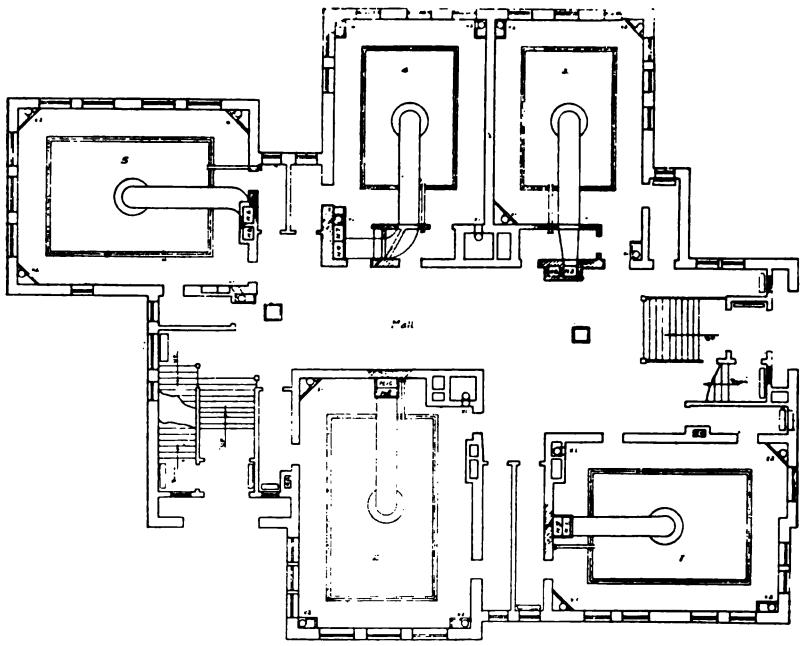
The temperature of the entering air as per twelve readings, expressed in degrees F., at 5-min. intervals, are given in the accompanying Table II:

TABLE II.—TEMPERATURE OF ENTERING AIR DURING TEST.

Readings.												
Room No.	1	2	3	4	5	6	7	8	9	10	11	12
3.	74	70	72	73	70½	73	70	71	73	70	73	68
Room No.												
8.	68	76	109	76	98	72	80	94	68	97	65	83

A simple device for humidifying is located between the tempering stacks and the fan inlet, and is controlled by a

humidistat, which is in a part of the building isolated from any influence or conditions in rooms Nos. 3 and 8. The relative humidity readings in room No. 3 showed 63 per cent., and in room No. 8, 54 per cent.



FIRST FLOOR PLAN OF THE ROCKFORD SCHOOL HOUSE.

Observations of the relative time required to heat room No. 3 and room No. 8 to 68 deg. F. were taken, with heat turned on, at 7.30 o'clock A. M.

From the accompanying Table III, giving the data compiled from these observations, it will be seen there was a margin of 35 min. in favor of room No. 3.

TABLE III.—RECORD OF OBSERVATIONS ON HEATING ROOMS TO 68 DEG., F.

	Initial temperature. Deg., F.	Rise, Deg., F.	Time.	Time required.
Room No. 3.	38	30	8:50 a.m.	1 hr. 20 min.
Room No. 8.	42	26	9:25 a.m.	1 hr. 55 min.

No difficulty was encountered in operating room No. 3 with the same apparatus while meeting the requirements of the remainder of the building. With the encouraging results obtained the Hall School was equipped throughout, during the Summer of 1912, with the new method, and has been in operation since Sept. 1, 1912.

The Hall School building is of brick, with wood floor construction, two stories in height, with full basement. It contains five regular school rooms on each of the two floors, with wardrobes, recitation rooms, principal's office and corridors. The contents above the basement comprise 124,500 cu. ft. The building has a pitched roof with asbestos slate covering. One room in the basement is used for the mechanical equipment. The powerhouse is isolated and constructed mostly below grade. It communicates with the mechanical equipment room in the basement by a concrete tunnel 4 ft. wide, 6 ft. 6 in. in height and 17 ft. long.

The mechanical equipment comprises a multivane No. 13 fan, direct connected to a side crank engine, and operates at 174 revolutions per minute. All radiation and Vento blast coils are operated on the Webster system of vacuum heating. Johnson service temperature regulation with intermediate control is used in each room. All galvanized ducts from the plenum chamber are of regulation design, with the exception of having been run to points where it was possible to take air delivery into the rooms from the front end of same.

Each of the ten school rooms is equipped as follows: A coil consisting of about three 1¼-in. pipes extends entirely around the room approximately 5 ft. from the exposed walls and 6 ft. from the inside walls. These pipes are suspended by special hangers 20 in. below the ceiling, as shown in an accompanying illustration. These coils are supplied individually by a 1¼-in. riser from the main in the basement. The riser is equipped with a modulation valve about 34 in. above the floor, which gives it a slight offset. A single return takes care of the two coils in series from the first and second floors, respectively.

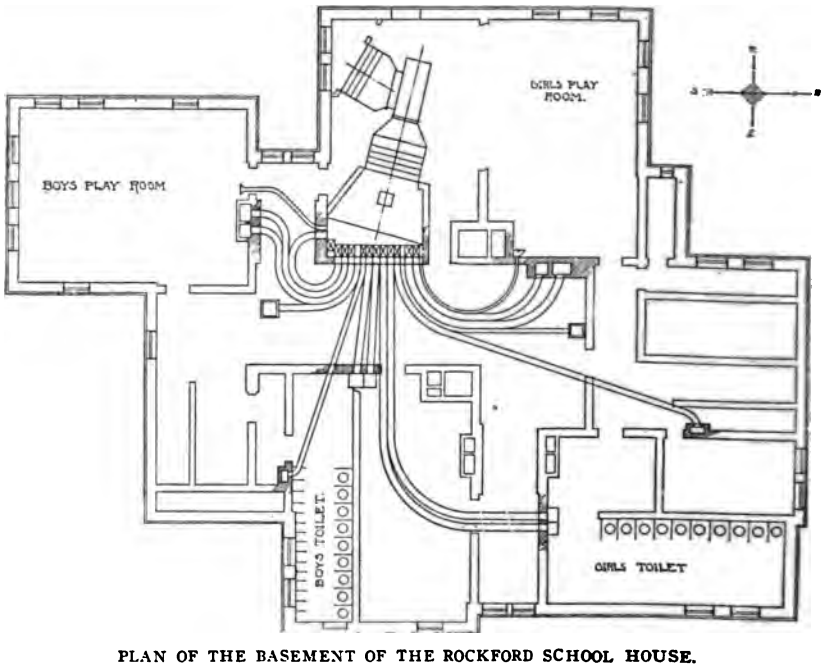
A galvanized iron duct, 14 x 28 in., extends from the connection with the flues from the basement to a point central over the seating section of the room, from which the air is delivered to the room through an especially constructed diffuser, which breaks the velocity and directs the fresh air out in all directions over the breathing zone. This diffuser is located at a height to admit the air for ventilation to the room just below the stratum of the air at the ceiling, which is holding a uniform density by contact with the direct radiation.

The foul air exits on the first floor are at the floor line in the four corners of the room, and are faced with sheet metal frames and louvers, as shown in an accompanying illustration. The air discharges through these into vertical galvanized pipes, 12 in. in diameter, which extend upward through the second floor.

The foul air exits on the second floor are located the same as on the lower floor, and connect with the foul air, 12-in. round pipes from below, increased to 17 in. in diameter. These vent pipes lead to the attic, where they are gathered in groups and discharge to the outer atmosphere. The sizes of these vent pipes were simply increased by multiples of the cross sectional area, the increase of resistance being relied on in the use of this method to maintain a sufficient static pressure in the rooms. All galvanized vent pipes below the attic are lathed and plastered on the outside. Only the exit frames are visible.

The principles on which this new method of heating and ventilating operates are as follows:

The direct radiation at the ceiling is the real vanguard of the heating agent for the



PLAN OF THE BASEMENT OF THE ROCKFORD SCHOOL HOUSE.

room. The greater percentage of heat loss is prevented by close contact with the part of the room which is most difficult to control, and is kept down to the minimum of difference in temperature between the floor and the ceiling. A warm air stratum at the

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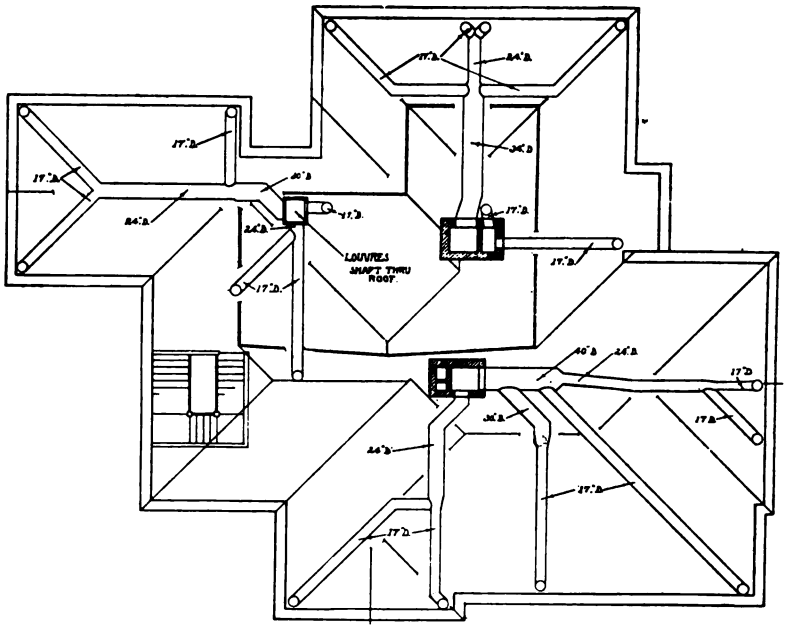
ceiling remains uniform in temperature and density. This influences the temperature of the room below without the air descending to the floor. The air for ventilation is previously warmed by Vento stacks in the basement, and enters the room through the diffuser, just below the warmer stratum of air at the ceiling, and is always of slightly lower temperature than the air at the ceiling. This leaves a narrow range for variation in temperature of ventilating air to complete further the fine art of temperature control.



PLAN OF THE ATTIC OF THE ROCKFORD SCHOOLHOUSE.

The air for ventilation is directed over the floor area of the room and is increasing in density at the moment of discharge, with the result that it falls to the floor as the forces of mechanical energy are exhausted. On arriving at the breathing zone gravity plus static pressure forces the air out of the room at the floor line, producing a movement of air downward at a velocity of approximately 2 ft. per minute, with positive absence of lateral drafts or air currents. This condition is not disturbed until below the top of the exits, and even then there is no noticeable air movement over the floor, due to the comparatively small exits drawing on a large volume. Each vent screen contains 1.1 sq. ft. clear area, which equals 4.4 sq. ft. for each room.

The accompanying Table IV gives the velocity and delivery records of all exits for ten 1-min. readings, taken after the system has been put in operation.

TABLE IV.—RECORDS OF VELOCITIES AND DELIVERIES AT VARIOUS EXITS.

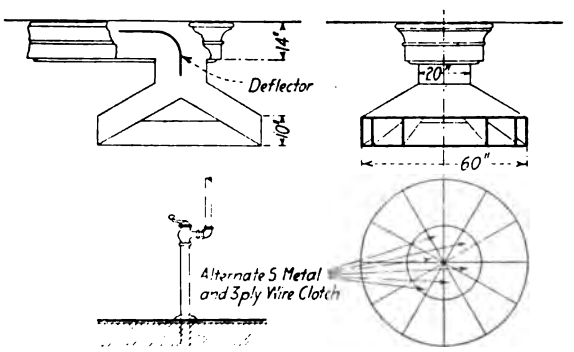
Room number.	North-west. exit.	North-east. exit.	South-east. exit.	South-west exit.	Total delivery, cu. ft., per minute.
1.....	270	384	326	400	1,518
2.....	390	394	396	350	1,688
3.....	390	400	450	314	1,709
4.....	332	354	460	446	1,751
5.....	364	360	334	332	1;529
6.....	336	346	345	342	1,506
7.....	352	406	334	350	1,586
8.....	434	428	448	366	1,848
9.....	344	328	356	384	1,553
10.....	412	336	370	282	1,590

The following is a summary of observations made while this system has been in operation :

A temperature of 85 deg. at the ceiling has been found to be sufficient as a maximum.

The temperature is controlled within a range of 1 deg., F., in all parts of the room throughout the breathing zone.

Air never enters the room above 73 to 74 deg., F.



DETAILS OF AIR DIFFUSER AND VALVE CONNEC TION TO CEILING COIL.

All rooms show an absolute sense of proportion and freshness.

There is no noticeable effect on the conditions of the rooms caused by the glass exposure, but tests show a slightly higher rapidity in downward movement of the air surface several inches in from the glass.

The air distribution is positive and under normal school room conditions, the aerial envelope around any individual is moving downward and does not come in contact with that of another, but is discharged from the room without rising again to the breathing zone.

There is an entire absence of drafts or currents, and the cold surface of desks and furniture does not contrast against high temperatures of atmosphere surrounding them, as is often complained of in other systems.

During the week of Dec. 15 tests were conducted by the school authorities to determine the efficiency of this system. The temperature was uniformly 68 deg., and the humidity at 58 per cent. To demonstrate that no cross currents existed, live steam was introduced into the room

VIEW OF ROOM VENT OPENING.

through the diffuser in the ventilating system. The steam distributed equally throughout the room and dropped gradually toward the floor, like a blanket, until it reached the level of the exits through which it escaped. Another test comprised the suspending of a large number of strings about the room with small pieces of paper attached to the end of each. The absence of any swaying of these pieces of paper showed that there were no cross currents generated by the ventilating system.

Some observations have been made of the amount of leakage. Readings of static pressures were taken with Ellison's differential draft gauge, which, being balanced at zero outside of the building, showed 0.03 in. pressure when connected with the inside of the room. All windows are provided with grooved weather strips, and are more than ordinarily tight, yet all these tests where steam was turned into the room showed a decided leakage outward, particularly between the meeting rails of the sash, which were purposely pried slightly open to allow a chance to observe if leakage was inward or outward.

Economy of operation is evident, but as yet no effort has been made to determine any facts or comparative saving. The studies of this method are incomplete at this time, owing to not having the time or opportunity to continue as uninterrupted study.

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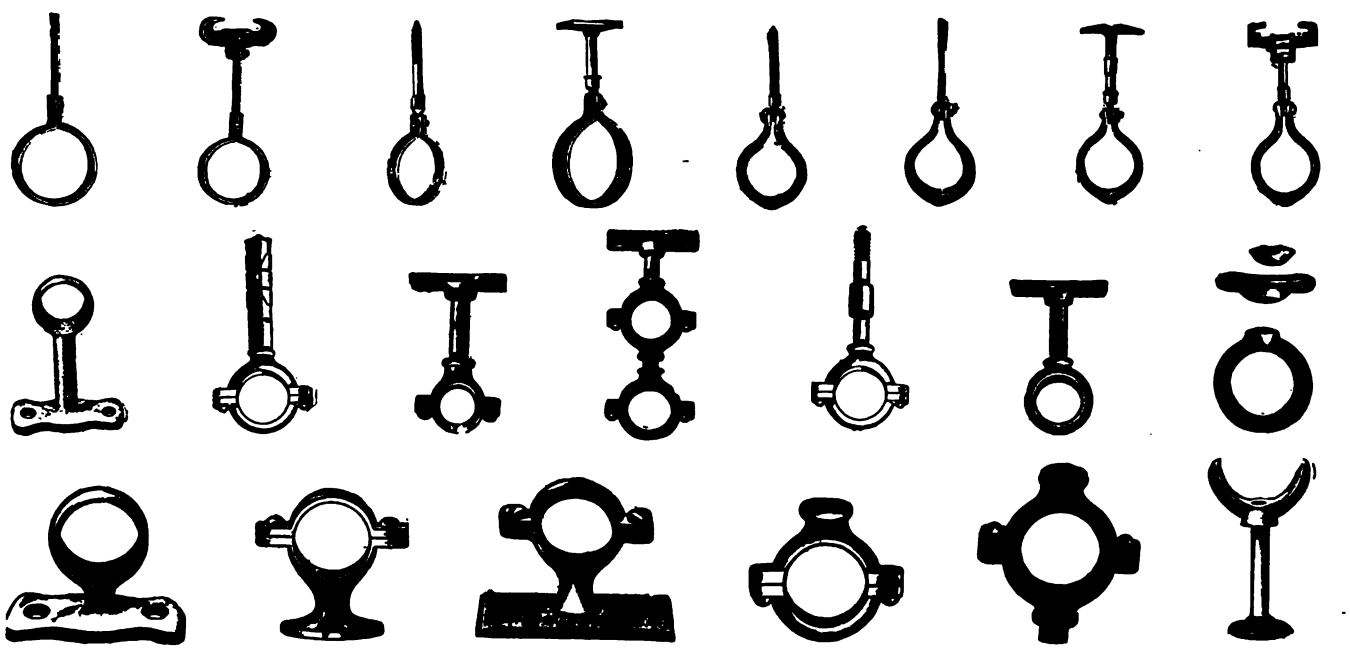

The consensus of opinion with the members of the Board of Education is that the installation at Hall School is a decided success. Teachers are enthusiastic. Pupils show no signs of restlessness toward the close of the school day. The school principal claims a noticeable improvement in the work done by both teachers and pupils.

VIEW IN ONE OF THE ROOMS EQUIPPED WITH DIFFUSERS.

At the time of preparing the above mentioned paper, which simply covers the installation in Hall School building as completed to date, it did not occur to the writer to go beyond the actual point to which my system has been developed in actual practise. However, on giving more serious thought to the matter of a subject being up for discussion it appeals to me that it would be interesting to the members of the society that I should submit the theoretical continuation of the method. If it be demonstrated in operation that it were desirable to put the same into practise. That is to arrange to thoroughly flush rooms and thereby discharged to the outside atmosphere any gases of harmful nature that might raise up out of air at breathing zone, and enrich the stratum of air at the ceiling to a point where the same would have any undesirable influence on the room.

A brief description of the means to this end, as contemplated in my theory is as follows:

VIEW DURING STEAM TEST, SHOWING UNIFORM DOWNWARD DISTRIBUTION.

A second air exit is provided in each corner of the room at the ceiling line, directly over exit at floor. Exit at floor and ceiling thus communicate to galvanized iron pipe discharging to out door atmosphere. Exits at top and bottom are provided with pivoted louvres with shutter bars, which are cross-connected between shutter bar of top and bottom sets. A small diaphram motor, operating on air pressure from temperature control system keeps lower exit open and top exit closed when rooms are occupied and ventilation with air distribution is desired. By operating a simple three way cock on air line apparatus room, the bottom exit is closed and the top exit is opened which clears the room of air at ceiling thereby thoroughly flushing out the room and giving an entire new air content.

The writer holds to the belief that the impure gases resulting from expired air are for the most part passed out of room with outgoing air, with the system as installed in Hall School. However, before the close of the heating season systematic observations will be made by fitting one room with the complete arrangements, as contemplated in my theory and described in heating and ventilation of Hall School and addenda to same, permitting comparative observation between the rooms not arranged for daily flushing and the room so arranged.

Pacific Electric Lets Contract for Elegant Structure at Urbita.

ONE of the finest bath houses and plunges in southern California will be erected by the Pacific Electric Co. at Urbita Spring Park, Cal., announcement of the new project being made by C. H. Burnett, of Los Angeles, manager of the outside parks and concessions for the Pacific Electric, who is now in that city. The contract was let to the Myzelle & Inhoff Co. and, when completed, the big structure will represent a total outlay for building and equipment of more than $10,000.

And work is to commence at once. There will be no delay, the workmen starting their labors Tuesday, March 4. The new building will be ready for occupancy by May 1.

The building will be in the Spanish Renaissance style of architecture, with plaster walls and tile roofs, and will be similar in appearance, finish and general arrangement to the celebrated Redondo Beach bath house.

The new building will be 96x159 feet and will contain twenty-five tub baths, besides acommodations for 200 plunge bathers, this being more than double the capacity of the present bath house. The plunge will be 50x100 feet, the same as at present, but the flow of water will be greatly increased, and arrangements will be made for quickly emptying and refilling the plunge so that the water may frequently be changed.

Up-to-Date Shop in Poughkeepsie.

THOMAS WATERS, the sheet-metal worker, has filed plans in the office of Building Inspector Coleman, of Poughkeepsie, N. Y., for the erection of a large plumbing and sheet-metal shop on Cottage St., near the factory of Charles Mitchell.

Mr. Waters intends to erect one of the most fully-equipped plumbing establishments in the city. The building will be 50x75 feet and will be of frame and sheet-metal construction. It will cost in the neighborhood of $12,000.

The New York House Bill 528 by Representative Kerwin amends the law referring to State Board of Health by providing that plumbing and drainage plans shall be filed with the State Board, and the latter board shall be entitled to charge a fee for the same.

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The *Jobbers* of Plumbing Goods of the United States desired a *Standard* of Weights and Capacities of "Galvanized Range Boilers." The National Committee of the Confederated Supply Association thereupon appointed a committee on Standards. This committee compiled a standard for Range Boilers. The Standard stipulates that all Galvanized Range Boilers must be stamped with their actual capacity, and the materials used in the boilers must be of a specified thickness. On all such boilers the "Naco" label may be used.

We Manufacture "Naco" Galvanized Range Boilers

L. O. KOVEN & BRO.

50 Cliff Street, New York

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Twenty-eighth Paper

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RULE 127. The general water closet accommodation of any building cannot be placed in the cellar, nor can any water closet be placed outside of a building except to replace an existing closet.

Plate 127 covers the first part of this rule, in that the general toilet facilities are not placed in the basement, but on the first floor, as this diagram indicates. If we did locate fixtures for general watercloset accommodation in cellar or basement the chances are that we would be too far below the main sewer in street or avenue when we arrived at this point with our house drain or house sewer.

We should, therefore, always bear in mind the fact that fixtures should be placed on the first floor or floors above. This plate, 127, shows at bottom of sketch the plan of a general toilet, including slop sink, watercloset, lavatories and sink near main vent and soil stack and the piping plan. Just above is the section.

We might have arranged the piping somewhat differently, but we think rangement entirely satisfactory.

Under the same rule 127 no wat can be placed outside of a building to replace an existing water closet.

Plate 128 is one illustration sh case wherein an outside watercloset replaced.

Assuming that this sectional (Plate 128) is of the rear of a presumably a city residence of mar standing, and that the watercloset near rear grade is set in an extensi up against rear wall of building. vent the possibility of freezing cut through the main cellar wall a cemented the space directly under closet, making it airtight. This wo viate the replacing of a closet with freezing watercloset.

Rule 128. In alteration work where practical to ventilate a water closet department by windows or a skylight di the outer air, there may be provided a g

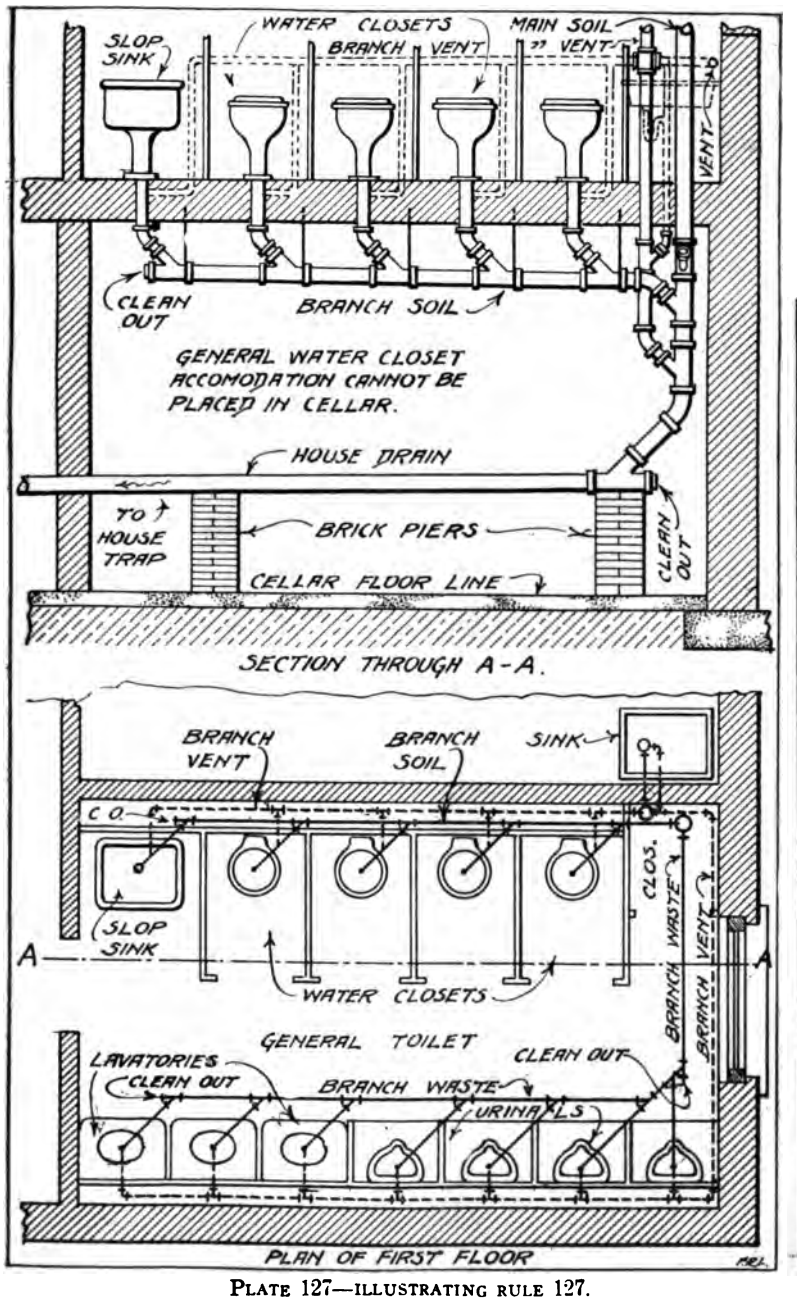

PLATE 127—ILLUSTRATING RULE 127.

PLATE 128—ILLUSTRATING RULE 128.

"Acto" Bowl with Integral Vent

PECK'S TOILETS

WITH

Seat Action Valve

We are prepared to furnish this valve on

Washdown Closets
Syphon Jet Closets
Extra Heavy Washdown Closets

either with or without integral vents. Each valve has a small integral controlling valve to regulate the flow of water. These outfits make a very clean, neat combination, especially for Schools or Factories.

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wrought iron vent duct extending to the outer air, which must be equal in area to at least 144 square inches for one water closet or urinal, and an additional 72 square inches for each water closet added therein.

Plate 129 illustrates the method of alteration work, the plan at left of illustration, and at right a sectional elevation. This sketch shows in detail the above requirements coming under the rule 128. Notice that the duct from toilet opens into a large court.

Rule 129. Where water closets will not support a run seat, the seat must be supported on galvanized iron legs.

Plate 130 illustrates this rule, the top of sketch being a plan and just below a sectional elevation. These seats are rarely found at the present time, excepting in old buildings. Instead of these really unsanitary seats and tops we should install a watercloset which will sustain a seat and cover itself without recourse to legs.

Rule 130. Every earthenware water closet with connection through the floor in all new work, and in all alterations, must be set on an approved floor slab of porcelain, slate, or other material impervious to moisture, same to be not less in size than the base of the water closet set thereon.

Plate 131 illustrates this rule. At bottom of sketch we show a sectional view of a syphon jet watercloset, whose base sets upon a porcelain floor slab. The upper sketch, same plate, 131, is a plan of the floor slab. This plan is reversed from the slab in section merely to give more room for the illustration.

Plumbing Inspector Resigns.

PLUMBING INSPECTOR THOMAS F. HARRIS, of Orange, N. J., resigned at the meeting of the Board of Health Feb. 4, in order to accept a similar position in Wellesley, Mass.

"Pure Water," a Brand New Filter Catalogue, Now Ready.

APPLICATIONS are now being received by the New York Continental Jewell Filtration Co. for its new catalogue, "Pure Water," which is ready for distribution to the trade. It pertains particularly to filters installed by plumbers for residences and drinking-water supplies. It differs from other filter catalogues in that it really tells something about filters in language which can be readily understood by the layman. Those of our readers who are interested in this profitable and high-grade side of the plumbing business will make no mistake in filing applications immediately for "Pure Water" at the company's offices, 15 Broad St., New York City.

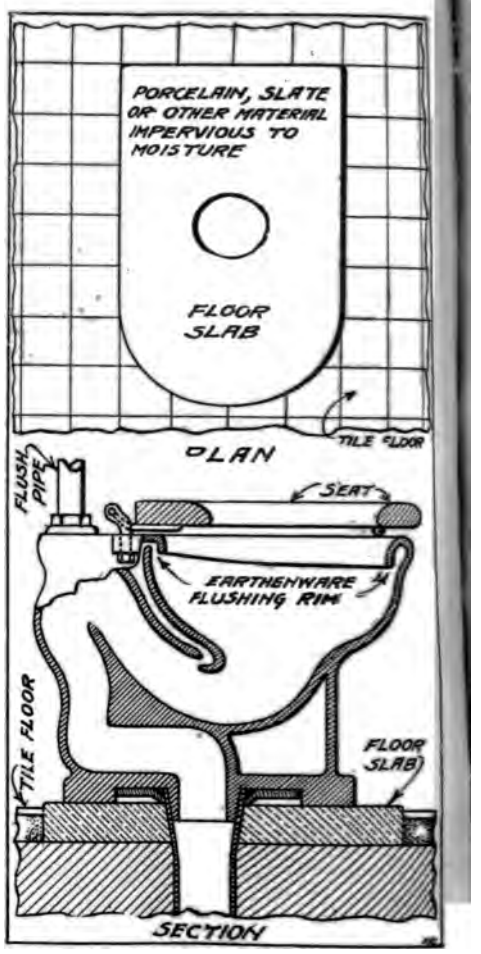

PLATE 130—ILLUSTRATING RULE 129.

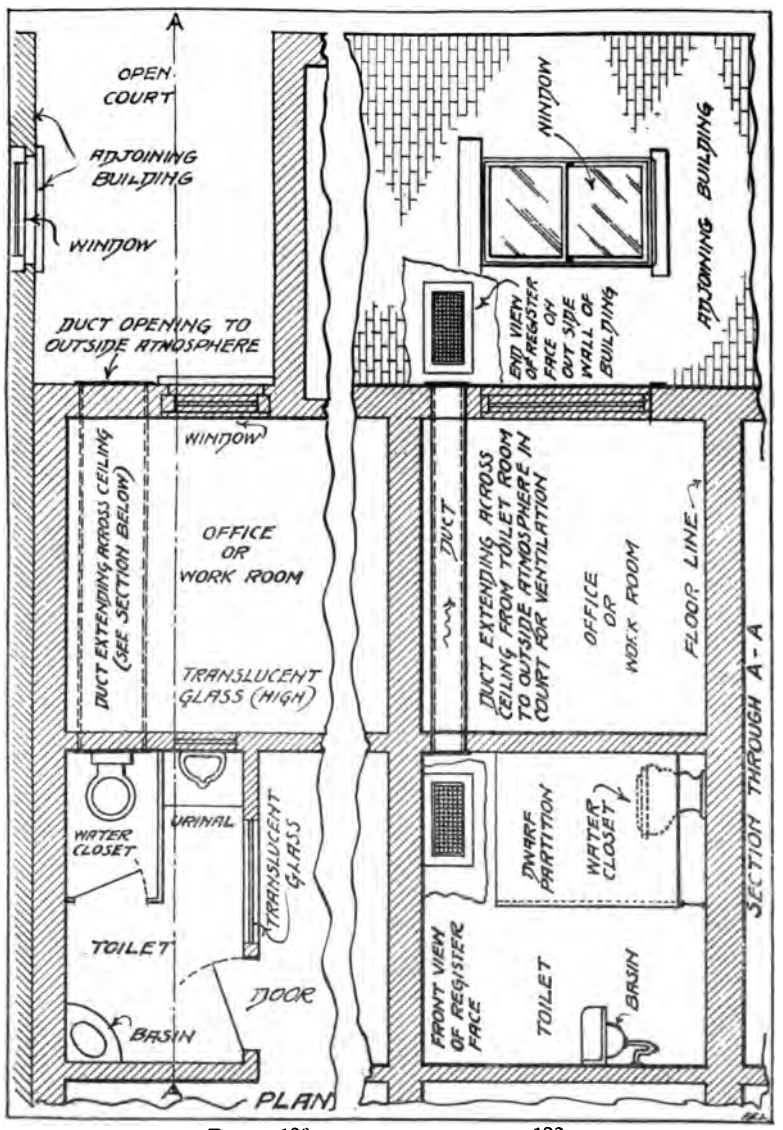

PLATE 129—ILLUSTRATING RULE 128.

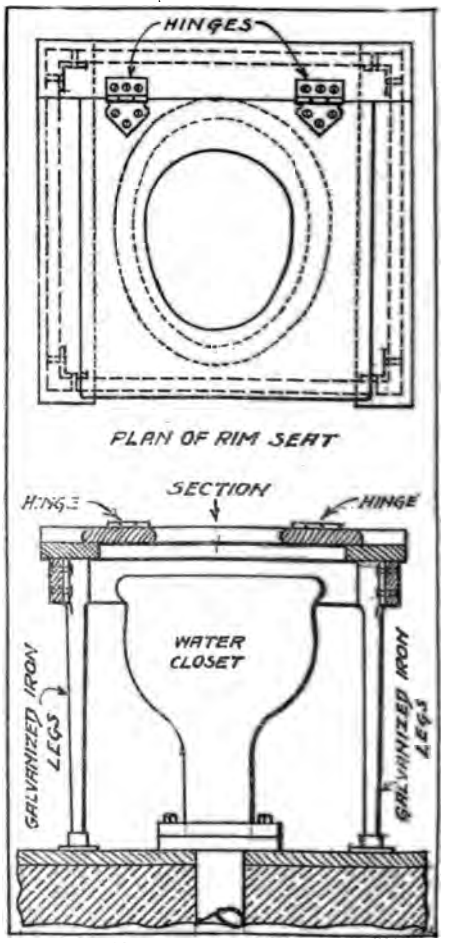

PLATE 131—ILLUSTRATING RULE 130.

McMann & Taylor Co.

**Wrought and Cast Iron Pipe and Boiler Tubes,
Brass and Iron Valves, Etc. Steam Specialties**

Plumbers', Gas and Steam Fitters' Supplies

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NEW YORK**

Annual Meeting of the Nebraska State Association.

THE fourth annual convention of the Nebraska State Association of Master Plumbers met at Fremont Feb. 20 and 21 and was r attended.

convention was opened on the morn- f the 20th at Masonic Hall, with ent John Morrissey, of Omaha, in air.

address of welcome was made by Abbott, of Fremont, who said that the tes were not only in the right church, so in the right pew, and all the earth as enclosed in the city of Fremont ieirs and the use thereof.

. Bixby, of Omaha, responded in be- f the visitors and accepted the gen- hospitality of the Fremont brethren. ated that they would enjoy every it of the freedom extended them in the city of the Pathfinder—a beau- ity named after an illustrious man.

Bixby compared conditions which nt the plumbing trade to-day with nditions of the early immigrants. In ng of association matters he placed mphasis on the efforts that are being o place the plumbing business above e as exemplified in the daily press rtain papers in the trade.

oncluding he stated that there is a deal to be thankful for as a result organizations all over the country ig together and demanding their

. Long, of Grand Island, a member executive committee, discussed the ls for obtaining contracts and of the ways of fulfilling them after they had ecured.

reports of the officers showed that ociation is in a sound condition and e membership is increasing.

On Friday the forenoon session was opened by F. W. Barclay, of Beatrice, who read a paper on "Courtesy and Business," in which he pointed out the dangers from failure to link courtesy with the business end of the trade. This was followed by an address by E. R. Gurney, vice-president of the First National Bank of Fremont, who spoke on "Business and Finance." He especially emphasized the need of financing business properly if it is to be a success. He declared that he knew nothing of the plumbing trade, but that he had found that the best way to succeed in any line of business is to know so much about the business in hand that you can realize how much more there is to learn. The address made a strong impression, and it was voted to have the speech printed and distributed among the members.

A discussion of the methods used in the installation of new styles of plumbing and other fixtures occupied a portion of the afternoon session. Charts were used for demonstrating and illustrating the discussion.

The following officers were elected for the ensuing year: President, George H. Wentz, 311 S. 11th St., Lincoln; vice-president, F. C. Barclay, Beatrice; treasurer, Henry Kruger, Omaha. Executive committee: J. C. Bixby, George W. Morris, William Bellamy, Omaha, and Ernest Dussell, Columbus, and the officers of the association. A secretary is to be appointed by the president later.

The credentials committee reported the following delegates present:

Aurora—L. M. Porter.
Beatrice—F. W. Barclay.
Central City—Ross & Hart.
Columbus—Ernest Dussell.
David City—M. D. Murphy.
Fremont—L. J. Larsen, H. L. Walker and Wollen & Burns.
Grand Island—R. D. Kingsbury and E. J. Long.
Lincoln—Cox Bros,, W. A. Given, R. C. Hull, Newberg & Bookstrom, F. C. Phillips & Co., L. W. Pomerine, Jesse Pound, Emil Rohlff, G. H. Wentz and the Weyant Plumbing & Heating Co.
Long Pine—G. A. Smith.
North Platte—W. A. Green and F. R. Stuart.
Norfolk—B. O. Daubert and Charles Van Winkler.
Omaha—John Anderson, Willam Bellamy, J. C. Bixby, Roy Bixby, M. H. Byrne, Emil Carlson, W. J. Cattin, C. R. Dodds, R. E. Epworth, Thomas Falconer, H. F. Fischer, B. Grunwald, B. Blaser, H. H. Kruger, H. W. McVea, George Morris, John Morrissey, J. J. Ostronic, T. C. Rich, Edward W. Ryks, W. Schollman and Joseph Johnston.

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BOTH HAND AND POWER

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NEW YORK *Catalog mailed on request.* CHICAGO

West Point—F. L. Boyer.
York—Charles Kleiner.

The delegates were entertained at an elaborate banquet on the evening of the 21st at Masonic Hall, where the feast of reason and the flow of soul were the means of cementing together more compactly the good fellowship that exists between the Nebraska plumbers.

The meeting place next year will be Omaha.

Convention Dates.

March 10, 11 and 12.—Annual convention of the Kansas State Association of Master Plumbers at Kansas City, with headquarters at Hotel Grand.

March 11 and 12.—Annual convention of the New York State Association of Master Plumbers at Buffalo, with headquarters at Hotel Iroquois.

March 18 and 19.—Annual convention of the Michigan State Association of Master Plumbers at Saginaw, Mich. The convention will be held in the Auditorium.

March 18 and 19.—Quarterly meeting of the National Association of Brass Manufacturers at St. Louis, Mo.

April 14.—Annual convention of the Arkansas State Association of Master Plumbers at Rogers, Ark.

April 14 and 15.—Annual meeting of the National Pipe and Supplies Association at Chicago, Ill.

April 15 and 16.—Annual convention of the Pennsylvania State Association of Master Plumbers at Pittsburgh, Pa.

May 14.—Annual convention of the Connecticut State Association of Master Plumbers at Hartford.

May 20, 21 and 22.—Annual meeting of the American Society of Inspectors of Plumbing and Sanitary Engineers at Louisville, Ky.

May 27, 28 and 29.—The fifth annual convention of the National District Heating Association at Indianapolis, Ind.

June 17, 18 and 19.—Annual convention of the National Association of Master Plumbers at Philadelphia, with headquarters at the Bellevue-Stratford Hotel.

June 23, 24 and 25.—Annual meeting of the National Association of Master Steam and Hot Water Fitters at Niagara Falls, N. Y. The secretary of the association is Henry B. Gombers, 260 West Broadway, New York City.

IOWA NEWS.

THE plumbing contract for the new hotel to be built by C. G. Bickley in the rear of W. 4th St., near the Hummel Hotel, Waterloo, Ia., and also for the new store building to be built on W. 4th St. adjoining the premises occupied by Hitchcock & Humphrey was awarded Feb. 1 to Quest & Smith. The figure named in the contract is approximately $8 000 and the very finest materials and fixtures are specified throughout.

Councilman Zell G. Roe, of Des Moines, Ia., has summoned architects to draw up plans for a new greenhouse at Union Park, and a new bath house on the site of the old one. The work of building will start with Spring. The bathhouse will cost $2,500. The greenhouse will be erected at a cost of $6,000.

Inspector Kehoe Will Examine School Plumbing.

SPURRED by reports that faulty plumbing is causing unsanitary conditions in the school buildings at Des Moines, Ia., City Plumbing Inspector Peter Kehoe quietly started to visit every school in the city with a view of making a complete and detailed report to the superintendent of public safety, Councilman F. T. Van Liew. If conditions warrant official notice will be served on the school board by the plumbing inspector, according to Kehoe's statement.

"There have been inspections and investigations, wild rumors and many reports of bad conditions," said Kehoe recently. "First it was the heating apparatus and then the conditions of the buildings as regards the walls, floors, bannisters and the like. But when it is reported that plumbing conditions are bad it is time for my department to take a hand.

"We are rather reluctant to take any action because we believe that the reports of the bad plumbing conditions are grossly exaggerated. However, it is our duty to find if they are true, and if so to take summary action, if not to exonerate the school board."

Specifications for Plumbing, Fixtures, Etc.

Prepared by the Board on Uniform Plumbing Specifications for the Treasury, War and Navy Departments

Laundry Tubs (Plate No. 42).

TUBS NO. 30 B to have integral back and be of dimensions shown. Stamped U. S. 30 B.

Tubs shall be fire-clay ware, with roll rim and flat face integral back, with hollow space in rear for supply connections.

Tub to be supplied with cast-brass waste having bar strainer, with loose rubber stopper. Tubs to be set with backs close to wall. Where set in battery there must be a space of two inches between fixtures.

Legs and Brackets.—Tubs to be supported on painted cast-iron legs and cast-iron adjustable braces extending from legs to wall; braces to be secured to masonry walls with ¼-inch brass expansion bolts not less than three inches long; to terra-cotta partitions with heavy toggle bolts or bolts extending entirely through said partitions, and to woodwork with heavy brass wood screws. Heads and nuts of bolts to be hexagonal, with rounded tops, and be nickel plated, except through bolts, which are to be provided with flat heads or washers on back, so they may be concealed by plaster.

Trap.—Each tub to have on waste a rubber waste plug and strainer bar and to be provided with a finished cast-brass, nickel-plated two-inch nonsiphoning trap. Floor outlet to be furnished. The nipples and pipe connections between trap and concealed piping to be standard annealed, drawn brass, full iron-pipe size, with screw-threaded joints with finished cast-brass nickel plate floor plates.

Faucets.—Hot and cold water connections to be provided for tub fitted with ¾-inch finished brass nickel-plated faucets of the Fuller pattern, made so that same can be easily taken apart for repairs, and fitted with adjustable flanges. Mechanism of faucets to be perfect in every respect. The eccentrics and stems of faucets to be perfectly fitted, and the gum ball to be secured to stem with cone-shaped expanding washer and substantial brass nut. Packing nut and gland to be so designed that a water-tight, easy-moving joint will be obtained. Cold-water faucet to be provided with ¾-inch hose connection as shown.

Water-supply connections to be fitted fitted with brass gate valves where tubs are set singly. In event tubs are set in battery, one valve on each supply is sufficient.

The pipes from supply mains to faucets to be as called for in the specifications for the work.

Plug and Chain.—The plug chain to be attached to one of the faucets. The ring attaching plug to chain and chain to faucet to be well soldered.

Wringer Base.—Where designation number is followed by W, wringer base is to be provided for each individual tub.

Where designation number is followed by WB, wringer base is to be provided between all tubs set in battery, tubs being set with two-inch space between them.

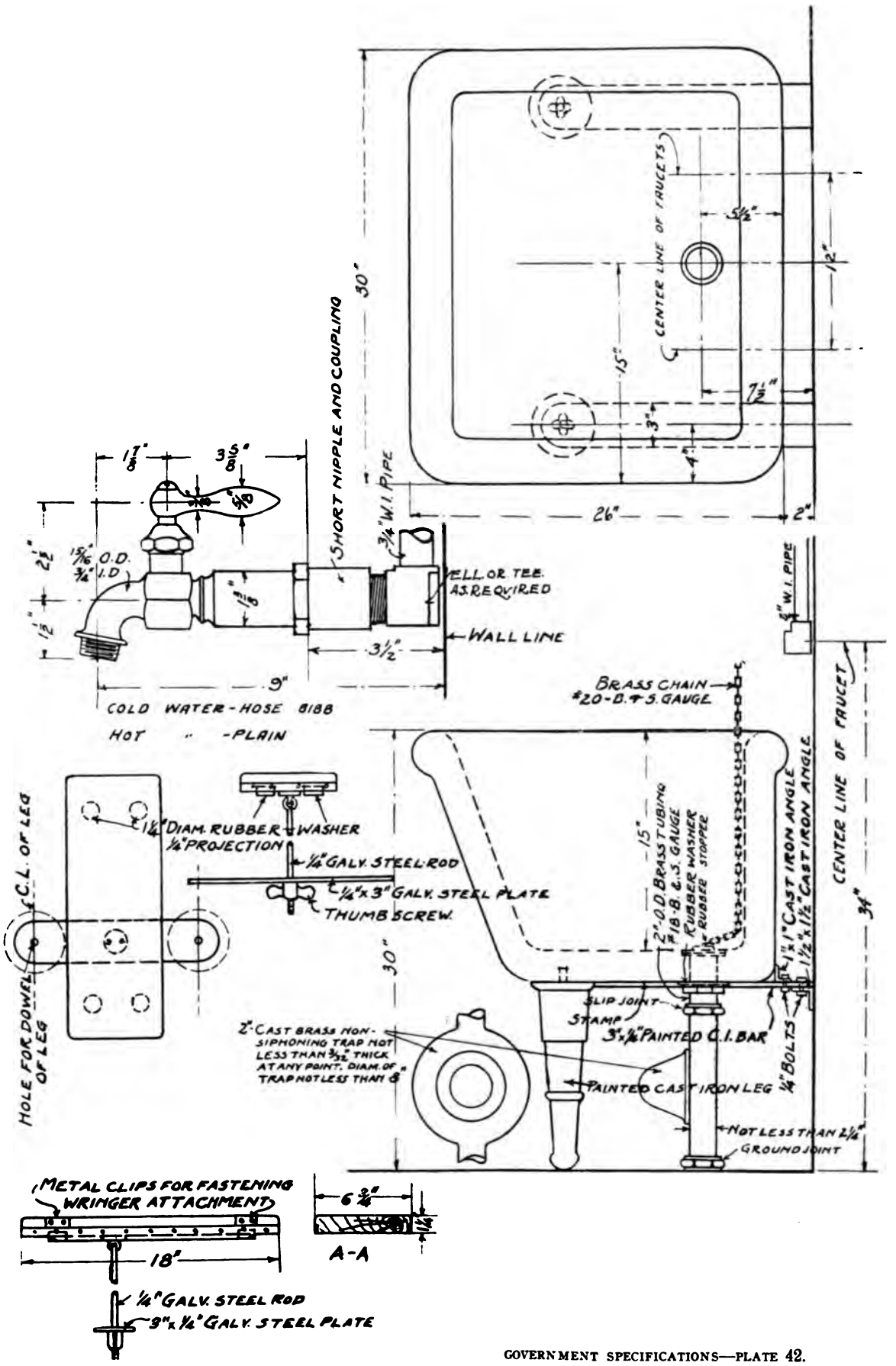
Wringer base to be constructed of well-seasoned ash, bound with heavy metal band, with recess dowels for wringer clamps. All of finished brass nickel plated and secured with galvanized rods and thumb screws.

OUTFITS.

No. 30 B.—Tub with back, no wringer base.

No. 30 BW.—Tub with back, wringer base each individual tub.

No. 30 BWB.—Tub with back, wringer base between adjacent tubs.



GOVERNMENT SPECIFICATIONS—PLATE 42.

MERCHANT PLUMBER AND FITTER
DEVOTED TO
PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

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J. H. PARKER, Publication Manager

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MERCHANT PLUMBER AND FITTER PUBLISHING CO.

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NEW YORK, MARCH 10, 1913.

The World's Greatest and Most Costly Construction.

The new Grand Central Station, New York City, located at 42d St. and Vanderbilt Ave., cost $180,000,000. Its annual cost of maintenance and upkeep will run into princely figures. To the best of our knowledge no trade paper has yet presented photographs showing the ramps and other unusual features of this monument to engineering skill. Incidentally our trade, both branches of it, in fact, has done its share nobly in contributing to the success of the undertaking. In the article elsewhere presented in this edition we refer to the various tasks skilfully and artistically performed by the members of the craft.

Law Separating Plumbing and Heating from General Contract.

An almost universal demand for copies of the New York State law separating plumbing, heating, etc., from the general contract impels us to present it in page form so that it may be studied to advantage and, if necessary, removed from the issue for more convenient consideration. The general contractor has too long fattened at the expense of the craft. It is high time that his wings are clipped. A passage of a law in all the States similar to the above, or its exact counterpart, cannot fail to protect the master plumber and fitter.

For many years the workers in the organization have pledged themselves to the enactment of a law whose purpose would be to separate the branches of our business from the general contract, but it was for the New York City association to accomplish the result referred to. Now that they have blazed the trail, it should not be a difficult matter for their fellow members throughout the country to secure the passage of other and similar laws effecting this great change in the handling of public contracts.

President Wilson on Organization.

We are able to present for the consideration of our readers a notable address made by President Woodrow Wilson upon organization, delivered upon the eve of his nomination for the Presidency. As a student of economics our Chief Executive has no peer, so that his judgment and information upon this important subject will earn the interested attention of our entire list of subscribers. Frequently we have presented the writings of prominent personages in Governmental circles respecting conditions with which they were familiar, but it is safe to say no more interesting study has ever been offered than that delivered by the nation's first citizen and published elsewhere in this edition.

Directory of Master Plumbers.

There has just been issued by the National Association of Master Plumbers its 52d edition for January, 1913. Approximately 9,000 names are contained in this valuable and painstaking compilation of master plumbers, and for the care and precision with which the volume has been constructed praise indeed is due those responsible for its production.

Our February 25th Issue.

The great demand made upon us by our subscribers and their friends for extra copies of our most recent issue, in which was contained a multitude of interesting and instructive features, leaves us, unfortunately, so placed that we cannot favorably act upon any more requests for copies of our Feb. 25 edition. And this despite the fact that we printed an extra thousand in anticipation of the call for extra numbers. In the future we trust we may be able to supply all demands upon us for duplicate copies and respectfully crave the indulgence of our friends for our present inability to honor their requests.

Personal

ONE of the most impressive incidents of the late complimentary dinner to President Frank T. Fee at the Hotel Knickerbocker was when the old war horse, John Byrns, presented President Fee with a diamond pin completely surrounded with emeralds. Gracefully did the national president express his delight at the receipt of this beautiful gift, which he said would be cherished for all time.

G. H. GSCHWIND, a popular young gentleman in the trade, who has successfully recovered his former robust health, has again entered the ranks and will call, in the interest of the Pierce, Butler & Pierce Mfg. Co., upon the trade in northern New Jersey. Mr. Gschwind will be remembered as a former attache of a popular and pretentious heating concern, from which he retired only when forced to for his health's sake. We extend to him our felicitations upon his complete recovery, and our sincerest wishes for his success and prosperity are also recorded.

D. EDWARD CASSIN, of the Colwell Lead Co. (Bronx branch), dropped in upon us the other afternoon. Edward is still active in the Bronx, Westchester and surrounding territory, and his popularity with his trade continues unabated.

I. J. BROWN, president of the Greater New York Master Plumbers' Association, also national director, has taken a trip through the south upon work for the national organization. Mr. Brown's experience and ability to carry the message give promise of some new locals for the national roster upon his return home. He will make a sturdy effort to establish a record for himself, and, considering his previous notable results in organizing, he has given himself quite a task. He will not return, so we are advised, until the middle of the coming month.

TIMOTHY E. KERWIN, Albany, N. Y., the able and conscientious chairman of the legislative committee of the New York State Master Plumbers' Association, has just returned from a six weeks' stay in the south. He gave several parties to prominent friends at the Royal Ponciana. To many of his brethren in the capitol city and elsewhere he has presented charming souvenirs in the shape of cute little alligators. Our good friend "Tim" is nothing if not thoughtful.

WILLIAM H. GURNEY, distributor, has removed to 181-185 Ellison St., Paterson, N. J. Mr. Gurney, we are happy to say, has developed and is conducting an active and progressive business in the distribution in quantity of boilers, radiators, valves, covering, vacuum cleaners and ranges. For many years he has been adding to his popularity and success in the northern New Jersey territory. Courtesy, close application and a knowledge gained from lengthy experience of the requirements of his many customers is the occasion therefor.

ALBERT BAERENKLAU, one of the progressive manufacturers' agents in the east, in addition to distributing products with which the trade is familiar, has added the Bullard adjustable roof flange to his list of accessories. We enjoyed his society the other afternoon, and he reports a brisk demand in the trade for quality

ALBERT BAERENKLAU, BROOKLYN, N. Y.

materials. As these are the only goods with which "Al" identifies himself, his order book is well filled. Mr. Baerenklau and his charming wife recently celebrated their marriage anniversary at their home, 54 Himrod St., Brooklyn, N. Y., and were the recipients of many valuable presents.

JAMES W. CROSBY, popular solicitor for the F. W. Webb Mfg. Co. in New York State for a number of years, has been selected to perform some special services in and about the city of Boston, Mass. For the reason of this advancement, for which our cordial felicitations are extended, our good friend will be unable to mingle at the Buffalo, N. Y., State convention. However, while absent in the flesh he will be present in spirit. Mr. Crosby's friends in the Empire State are legion, and they are all glad at his preferment and wish him all success in his new field of endeavor.

E. S. BENT, who has traveled the Maine woods, in addition to New Brunswick, Nova Scotia and Newfoundland, for the F. W. Webb Co., has been brought back to America and will become active in the New York State territory. "Ed" has always been a popular, forceful and aggressive salesman, and, while his old customers will miss his smiling face and persuasive manners, he can, perhaps better than any other man, fill the gap made by the emigration to other parts of his predecessor, James W. Crosby.

Meeting of Central Supply Association.

AN interesting quarterly meeting of the Central Supply Association was held Feb. 26 at the Hotel Sherman, Chicago.

The morning session was devoted to the reports of the officers and committees, followed by an exhaustive report on association affairs by Secretary Paul Blatchford.

An interesting talk was given on "Banking Reform," by William A. Scott, Director of School of Commerce and Professor of Political Economy of the University of Wisconsin at Madison. The professor gave a résumé of the growth of banking methods from the crisis of 1837 to the present day, and pointed out many features of the system which needs reforming.

A lunch was served in an adjoining room and was heartily partaken of by the members and guests.

At the afternoon session an interesting address on "Mechanics Lien Law" was made by Elmer H. Adams, a prominent attorney of Chicago, who was closely followed by the attentive members.

Chicago Resolutions on Death of T. A. Hill.

AT a regular monthly meeting of the Chicago Master Plumbers' Association it was resolved that the association tender an expression of its sympathy to the family of the late T. A. Hill, of New York City, past president of the National Association. C. J. Boyd, P. N. Murphy and C. J. Byrne formed the resolution committee.

The New Secretary of Commerce.

MANY of our readers no doubt will be pleased to learn that a prominent manufacturer in our trade has been selected by President Wilson to fill a responsible position in his cabinet. The President is to be congratulated on his selection.

We herewith append a short sketch of the career of Mr. Redfield:

William Cox Redfield, of Brooklyn, appointed Secretary of Commerce, is a manufacturer and a Representative in Congress from the Fifth New York district. Contending that labor in America does not need the protection of a high tariff, he has figured in several important tariff debates in the House and is regarded by the Democrats as an expert on the subject. He was born in Albany in 1858. His education was in the public schools of Pittsfield, Mass.

In 1883 he moved to Brooklyn and engaged in manufacture. He is president of the J. H. Williams Drop Forging Co. and the American Sorocco Co. and vice-president of the American Blower Co., of Detroit and Troy. He is a director of the Equitable Life Assurance Society, a trustee of the City Club, a member of the Crescent Club's board of governors and a director of the Apollo Club of Brooklyn. In 1902 he was Commissioner of Public Works for Brooklyn. He has traveled much, especially in the Orient. He is married, lives at 3 Tennis Court, Brooklyn, and has a Summer home at MacMahan, Me.

The Establishment of Comfort Stations.

A PAMPHLET has been issued by the Committee on Public Comfort Stations, of which Frank S. Hanley, of New York, is the secretary, calling attention in a brief way to the efforts being made by the committee to induce the proper authorities of municipalities in this country to take a more active interest in the preservation and health of its citizens. The committee believes that every manufacturer and wholesaler having affiliation with the national committee should encourage in every way possible the establishment of these stations, which heretofore has been woefully neglected by American cities.

The following letter, with a request for replies, has been sent to boards of health and sanitary officers throughout the country:

Gentlemen—The necessity for the establishment of public comfort stations is becoming recognized by not only the leading sanitarians of the country, but also by public officials in every up-to-date American city. The subject is worthy of the earnest thought of officials everywhere, and we are glad to say that within the last few years important results have been obtained. It is the opinion of many sanitarians who have given thought to the subject, that the establishment of these stations is one of the most important matters to which public officials should direct their attention, as without them no great progress can be made in upbuilding the health and morals of the people.

This committee, representing over 500 manufacturers of and jobbers in plumbing and steam fitting supplies, has unanimously endorsed the public comfort station idea, and it is endavoring to create a more vigorous interest in their establishment.

Have you any public comfort stations in your city? If not, what are the prospects for getting them?

We will appreciate your answers to the foregoing, and at the same time will be obliged to you if you will let us know if we can be of assistance to you on this proposition. Respectfully,
National Committee of the Confederated Supply Associations.

FRANK S. HANLEY, Secretary.

The following well-known gentlemen compose the committee on the establishment of public comfort stations appointed by the president of the National Committee of the Confederated Supply Associations July 12, 1912:

Herman M. Hoelscher, of the L. Wolff Mfg. Co., Chicago, Ill., chairman,; E. Hammann of the J. L. Mott Iron Works, New York; W. A. Myler, of the Standard Sanitary Mfg. Co., Pittsburgh, Pa.; F. W. Hubbard, of the W. B. Hubbard & Sons Co., Boston, Mass., and J. Walter Lyons, of the Keystone Pottery Co., Trenton, N. J.

Meeting of the Ohio State Association.

A THREE DAYS' session of the twenty-second annual convention of the Ohio State Association of Master Plumbers was held at Toledo on Feb. 18, 19 and 20, with the largest attendance ever recorded in the chronicles of the State Association.

A goodly number of delegates arrived early on Monday, the day previous to the opening of the meeting, a large number being accompanied by their wives and daughters, and domesticated themselves at the Boody House, the headquarters of the convention.

An informal reception was held in the evening in the hotel parlors, and refreshments were served during the progress of a musical entertainment which had been prepared for visitors by the Toledo local.

On Tuesday morning, Feb. 18, the delegates repaired to Valentine Hall, which had been secured for the business meetings of the three days' session, and at precisely 9:30 A. M. the convention was called to order by President John F. Drees.

After the invocation had been pronounced by Rev. Samuel Charles Black, President John A. Brooks, of the Toledo local, welcomed the delegates in a fitting speech which was heartily applauded. Mr. Brooks continued as master of ceremonies during the speech-making program, introducing the speakers.

The Hon. Brand Whitlock, mayor of Toledo, gave the visitors a hearty welcome and impressed his hearers very much upon his knowledge of the craft. His remarks on the progress of plumbing and the benefits of organization were well received.

The mayor was followed by Commodore John E. Gunckel, president of the Toledo Newsboys' Association, who gave a very interesting talk on the work being done among the boys and girls of Toledo by that association.

Past National President A. C. Eynon, of Canton, extended to the Ohio association the greetings of the National association, stating that no other State has furnished as much material for the National association as Ohio.

President Drees responded by paying a glowing tribute to Mr. Eynon for the valuable services rendered in the past to the Ohio State Association.

The next thing on the program was the posing for the official photograph, and the meeting adjourned at 12:30 o'clock for that purpose.

The afternoon session convened at 1:30 o'clock, and the first real business of the convention was begun by the appointment of the following committees by the Chair:

Resolutions—D. H. Roberts, Cleveland; H. P. Cahill, Akron, and William Haas, Dayton.

Credentials—M. R. Daso, Toledo, chairman; E. A. Kleine, Cincinnati; R. H. H. Decormoux, Sprinfield, O.

Grievances—William Rowland, Youngstown; W. E. Bowers, Zanesville; C. L. Arting, Mansfield.

Press—Thomas Kewley, Toledo; C. C. Alexander, Fostoria; E. H. Saunders, Portsmouth, and G o. S. Freye, Toronto.

Auditing—Walter F. Kirn, Akron; Henry Schwartz, Cincinnati, and Karl F. Henry, Youngstown.

During the convention Mr. Henry was called home on account of injuries received by a relative in an accident, and James

F. W. SPONSELLER, CANTON,
President Ohio State Association.

Heasley, of Warren, was named on the committee in his place.

J. A. Wood, of Toledo, was named as sergeant-at-arms and appointed Andrew Murphy, of Cincinnati, and J. A. Mills, of Canton, as his assistants.

Tellers—Henry Smith, of Warren, and Charles Hoffman, of Mansfield.

A summary of the minutes of the last annual meeting was read by Secretary Eb. Ellen and approved.

President John F. Drees followed with his annual report. He said that during the year a new local organization had been formed in Columbus, and when this organization is in better shape the matter of its affiliation with the State association will be taken up. During the year Zanesville organized a new local with nine members; Ashtabula added six to its membership. A new organization was effected in Akron taking in the plumbers in the adjoining towns of Cuyahoga Falls, Kent and Barberton and Wadsworth, resulting in an addition of five members to the former Akron local. Five were also added to the membership of the Middletown local.

The president referred to meetings recently held in Columbus to discuss the changes to be made in the State plumbing code. He was in attendance at these meetings accompanied by the State Sanitary Committee and the State plumbing inspector. The object of revising the code was to provide a model one that might be adopted by every municipality in the State.

On the subject of workmen's compensation, he said that under the proposed law Ohio employers would be able to carry their own insurance risks. If the law, as finally passed, permits this, the association ought to carry its own risks, and he favored the formation of a mutual insurance association in the interest of economy to all the members.

The appointment of a legislative committee of three members to work for friendly legislation and to oppose legislation that is against the interests of the plumbers was also recommended.

In concluding his remarks the president extended his thanks to the officers and members for their co-operation during the past year. The recommendations in the president's remarks were referred to the resolutions committee.

In submitting his annual report Secretary Eb. Ellen showed a membership of 348, which was a net gain of three over the previous year. Mr. Ellen's report as treasurer showed an increase in the amount of money on hand, as compared with a year ago.

On Wednesday morning the delegates were early in their seats and the legislative machinery was quickly put in motion. Several resolutions were read and referred to the resolutions committee. A communication was read from W. W. Hughes, of Minneapolis, who favored making State vice-presidents presidents of the State association. It was referred to the board of directors, with the recommendation that it be presented to the convention in the form of a resolution.

A letter was read from National President Frank J. Fee, of New York, wishing the State association success and expressing regret at being unable to be present. He asked that efforts be made to have a new local established at Columbus.

The report of the sanitary committee was presented by H. W. Eckhardt, of Cleveland. The committee reported that the State plumbing code adopted in 1911 was accomplishing good work where it was enforced, but some changes were necessary. The committee recommended house inspectors of plumbing by the State Board of Health and endorsed D. H. Roberts, of

Cleveland, as a member of that board. Chairman Eckhardt outlined the important changes proposed in the State plumbing code. The report of the committee was received with a vote of thanks.

On the suggestion of Chairman Roberts, of the resolution committee, the board of directors was directed to draft resolutions embodying the recommendations made by President Drees.

J. A. Wood, of the essay committee, read three essays. Two of these were by W. A. Gibb, of Canton, on "Public Confidence, How to Win It by Advertising and Otherwise," and "Obligation." He urged plumbers to meet every obligation and to assist in uplifting fellow master plumbers. J. A. Brook, of Toledo, in the third essay, advocated the living up to the golden rule. The essays were received with a vote of thanks.

Mr. Eynon made a brief address in which he said that spice should be added to the proceedings by taking up matters that members are interested in outside of the regular routine, matters that come up before them every day in their business. In this connection he referred to a letter of the national president on discounts, bringing before the convention the subject of whether a single discount system should be preferred to the present system. He discussed a letter written by J. C. Clow, a manufacturer, that was recently published in the *Ohio Master Plumber,* in which the writer favored the single discount system. Mr. Eynon opposed any change in the system and advanced arguments in support of his position.

Thursday, the last day of the convention, might be termed "Resolution Day," as a greater part of the day was devoted to their consideration.

A resolution was adopted endorsing the action of the Salt Lake City national convention opposing the change in the present form of discounts and opposing any change in the form of discounts unless such changes are formulated and agreed to by a joint committee of jobbers, manufacturers and representatives of the National Association.

A resolution was adopted providing that all committees be instructed to notify any local in the State when any proposed legislation comes up that would be of interest to the different locals.

Another resolution adopted instructed the directors to prepare an amendment to the constitution requiring locals to make certain specified reports monthly with a view of closer affiliation and for the purpose of providing statistics.

A resolution was adopted recommending to the National Association the advisability of arranging the meeting of State presidents at the national convention.

A resolution was adopted endorsing the establishment of a $100,000 trust fund for the National Association, as outlined by President Eynon at the Salt Lake City convention and pledging to support all the members of the State organization. Mr. Eynon explained the reasons why he thought such a fund should be established. He believed that it would result in the strengthening of membership, improvement of the association and eventually in a lower per capita tax. He wanted Ohio to be the first to take action favoring the plan. He said that the fund could be raised by the payment of $12 by each member and suggested that payments of $2 semi-annually be made for three years.

A resolution of condolence was adopted respecting the death of T. A. Hill, of New York, formerly president of the National Association.

An interesting address on the Ohio plumbing code was given by W. E. Groeniger, Ohio State Inspector of Plumbing. We will endeavor to place this interesting paper before our readers in a future issue of THE MERCHANT PLUMBER AND FITTER.

The afternoon session of the last day was taken up mostly by the election of officers and the appointment of committees. The election of officers for the ensuing year resulted as follows:

President, F. W. Sponseller, of Canton; vice-president, James A. Wood, of Toledo; secretary-treasurer, Eb. Ellen, of Cleveland; State vice-president, John F. Drees, of Cleveland.

JOHN F. DREES,
Ex-President Ohio State Association.

Delegates to National Convention—Geo. Cramer, of Canal Dover, and Thomas J. Dyer, of Cincinnati. Alternates—John Schneider, of Dayton, and John A. Brooks, of Toledo.

The following committees were appointed by President Sponseller:

Apprenticeship—E. M. Burrough, Ashtabula; Andrew Jensen, Ravenna, and J. T. Beall, Alliance.

Essay Committee—S. C. Clemens, Dayton; C. C. Alexander, Fostoria, and W. H. Drayer, Middletown.

Sanitary Committee—E. H. Morgan, Cincinnati; J. A. Brooks, Toledo, and Charles W. Wilson, Youngstown.

Board of Directors—Harry S. Smith, Warren; Charles Hoffman, Mansfield, and J. J. Vogelpohl, Cincinnati.

The next place of meeting is to be Cincinnati.

The credentials committee reported the following delegates present:

Akron—H. P. Cahill, J. F. Kirn, C. W. Heiman and F. Viall.
Ashtabula—E. M. Burroughs, F. R. Gravatt.
Alliance—J. C. Ellis, J. T. Beall, Clarence McDonald.
Bellefontaine—Wm. Foulk, Robert Davidson.
Bellaire—James R. Fitton.
Cambridge—J. F. Orr.
Canal Dover—George Kreamer.
Canton—Leo Schumacher, Jonas Mills, H. F. Trushel, W. A. Gibb, A. C. Eynon.
Cincinnati—Thomas J. Dyer, Wm. Hillenbrand, Jerome Murphy, Edward Frank, Andrew Murphy, Edward H. Morgan, E. Kleine, Henry H. Schwartz.
Cleveland—George J. Wehrle, E. Ellen, E. E. Hill, H. W. Eckhardt, Thomas P. McDermott, A. W. Southwell, A. L. Bacher, F. E. Manney, D. H. Roberts, John F. Drees.
Conneaut—M. Kehoe.
Dayton—Wm. Haas, Harry Danner, John Schneider.
Defiance—Thomas H. Carey.
Fostoria—C. C. Alexander.
Lima—C. M. Wood, C. C. Cowles, H. B. Chase.
Mahoning Valley—A. G. Weinberg, James Heasley, T. G. Beede, J. C. Cummiskey, Wm. Rowland, Harry Smith.
Marion—W. E. Frye.
Mansfield—W. E. Antrican, Charles Arting, George Friechten, Charles Hoffman.
Middletown: W. H. Drayer, L. M. McCain.
Portsmouth—Edwin E. Saunders.
Ravenna—Andrew Jensen.
Sandusky—Henry Appell.
Springfield—Charles E. Ridenour, James Krumholtz, R. H. Decormoux, W. D. Fullrath.
Steubenville: G. S. Freye, James Lonacre, James H. Frazer.
Toledo—J. A. Brooks, Wm. E. Girkins, Wm. G. Wacker, Thomas Kewley, Charles O'Neil, J. J. Schelling, George A. Jackson, Adam Boes.
Toronto—George S. Frey.
Zanesville—W. E. Bower, J. W. Clark.

Among the manufacturers in our trade represented at the meeting, together with their able assistants, were:

The Central Brass Mfg. Co., of Cleveland, by V. M. Mahler, assistant sales manager, assisted by the Ohio representative, W. E. Edwards; the Leader Iron Works, of Decatur, Ill., by W. V. Pettit; the H. Mueller Mfg. Co., of Decatur, Ill., by J. H. McCormick and Ernest B. Cameron; the Peerless Selling Co., of Evansville, Ind., by Charles G. Perkins; the Mouat-Squires Co., of Cleveland, by W. A. Stone; the Bowlus Mfg. Co., of Springfield, O., by Mr. Bowlus; the Vaile-Kimes Co., of Dayton, O., by H. A. Stamper and R. L. Tansel; the Columbus Brass Co., of Columbus, O., by E. N. Skinner; the George J. Roberts Co., of Dayton, O., by John C. Jameson and Ed. P. Sheeran; the Acme Specialty Mfg. Co., of Toledo, O.; the Humphrey Co., of Kalamazoo, Mich., by Thomas E. Bullion; the Globe Brass Mfg. Co., of Cleveland, O., by H. Falbers and P. B. Rutledge; the Pittsburgh Water Heater Co., of Pittsburgh, Pa., by Thomas Boss; the Monarch Brass Co., of Cleveland, O., by Gus Schirmer; the Kennedy Co., of Cleveland, O., by Ike Newman; the Sanitary Co., of Cleveland, O., by James Leonard; the Bishop-Babcock-Becker Co., of Cleveland, O., by H. E. Deney; the Welker Supply Co., of Cleveland, O., by Adam Welker and C. E. Webb; the Honeywell Heating Specialty Co., of Wabash, Ind., by C. E. Jones; the H. B. Smith Co., of Westfield, Mass., by James P. Shoop; Kieley & Mueller, of New York City, by S. S. McDonald; Mustee Water Heater Co., of Cleveland, O., by C. J. Moody; Bullard Specialty Co., of Tiffin, O., by M. A. Morris; the Bryant Heater & Mfg. Co., of Cleveland, O., by C. G. Bryant; the Farnam Brass Works, of Cleveland, by S. Resick and J. A. Kiessel,

New York State Law Separating Plumbing, Steam Heating, Etc., from General Contracts.

CHAPTER 514, LAWS OF 1912. AN ACT

To amend the general municipal law and the State finance law, in relation to the awarding of contracts.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Article five of chapter twenty-nine of the laws of nineteen hundred and nine, entitled "An act relating to municipal corporations, constituting chapter twenty-four of the consolidated laws," is hereby amended by adding at the end a new section, to be section eighty-eight, to read as follows:

Sec. 88. Separate specifications for certain contract work. Every officer, board, department, commission or commissions, charged with the duty of preparing specifications or awarding or entering into contracts for the erection, construction or alteration of buildings in any county or city, or the borough of any city, when the entire cost of such work shall exceed one thousand dollars, must have prepared separate specifications for each of the following branches of work to be performed:

1. Plumbing and gas fitting.
2. Steam heating, hot water and ventilating apparatus.

Such specifications must be so drawn, as to permit separate and independent bidding upon each of the classes of work enumerated in the above subdivisions. All contracts hereafter awarded by any county, city or borough, or a department, board, commission, or commissioner or officer thereof, for the erection, construction or alteration of buildings or any part thereof, shall award the respective work specified in the above subdivisions separately to responsible and reliable persons, firms or corporations. Nothing in this section shall be construed to prevent the authorities in charge of any county or municipal building from performing any such branches of work by or through their regular employes, or in the case of public institutions, by the inmates thereof.

Sec. 2. Article two of chapter fifty-eight of the laws of nineteen hundred and nine, entitled "An act relating to State finance, constituting chapter fifty-six of the consolidated laws," is hereby amended by adding at the end thereof a new section, to be section fifty, to read as follows:

Sec. 50. Separate specifications for contract work for the State. Every officer, board, department, commission or commissions charged with the duty of preparing specifications or awarding or entering into contracts for the erection, construction or alteration of buildings for the State, when the entire cost of such work shall exceed one thousand dollars, must have prepared separate specifications for each of the following branches of work to be performed:

1. Plumbing and gas fitting.
2. Steam heating, hot water and ventilating apparatus.

Such specifications must be so drawn as to permit separate and independent bidding upon each of the classes of work enumerated in the above subdivisions. All contracts hereafter awarded by the State, or a department, board, commission, commissioner or officer thereof, for the erection, construction or alteration of buildings, or any part thereof, shall award the respective work specified in the above subdivisions separately to responsible and reliable persons, firms or corporations. Nothing in this section shall be construed to prevent the authorities in charge of any State building from performing any such branches of work by or through their regular employes, or in the case of public institutions, by the inmates therof.

Sec. 3. This act shall take effect September first, nineteen hundred and twelve.

THE Fullerton-Weaver Realty Co. bought from William E. Low and Miss Jane C. P. Tiffany, respectively, through Douglas L. Elliman & Co., 65 and 67 E. 66th St., Manhattan two four-story dwellings, each on a lot 18 x 100.5. This plottage will be added to the recent purchase through the same brokers of the northwest corner of Park Ave. and 61st St., and will give a frontage of 80 feet in the avenue and 110 feet in the street. The Fullerton-Weaver Realty Co. will erect an apartment house, containing one apartment of eighteen rooms and six baths to a floor. J. E. R. Carpenter will be the architect.

James H. Hummell, a wealthy ventilator manufacturer, with offices in 110 W. 32d St., Manhattan, dropped dead Feb. 26 as he was running to catch a train on the New York, New Haven & Hartford Railroad. A physician said Hummell died immediately from an attack of heart disease, aggravated by his running. Hummell was one of the oldest commuters of Mt. Vernon. He was 70 years old and lived in 27 Clermont Ave, in the Chester Hill section.

Philip Levitt, plumbing and heating contractor of 21 E. 110th St., Manhattan, has the contract for the plumbing alterations in the Hotel Albany on Broadway. Among other nice contracts he has on hand is the plumbing in the Consolidated Gas Co.'s building on 66th St. and Payton's Theater in Brooklyn.

The W. G. Cornell Co., of Manhattan, has the steam heating contract in the Hotel Albany on Broadway, New York.

Ewing, Bacon & Henry, Inc., agents of Manhattan, have rented to the Powers Regulating Co. the ground floor at 220 East 41st St.

Violations of the Plumbing and Draining Regulation in Manhattan.

THE following communication has been received by us from the Superintendent of Buildings of Manhattan, Rudolph P. Miller, calling attention to violations of the plumbing and drainage regulations of New York City:

MERCHANT PLUMBER AND FITTER, 200 Fifth Ave., New York City:

It has come to the attention of this Bureau that certain supply houses are selling to the plumbing trade in this city, 4-inch brass ferrules weighing 1¼ pounds, whereas the plumbing and drainage regulations require that such ferrules shall weigh at least 2¼ pounds.

Will you please call the attention of your readers to this, so that the trouble which is sure to arise in case such light ferrules are used, may be avoided?

Another matter that should have the attention of your readers is the apparently very general practise of putting in water closet cisterns of smaller capacity than required by the regulations. The rules require an eight-gallon tank, which means that the tank shall contain eight gallons of water. Any tank of less capacity installed in this city will be considered in violation of the plumbing rules and regulations. Plumbers who are installing these should be careful to secure the proper size cisterns. Yours truly,

RUDOLPH P. MILLER,
Supt. of Buildings.

Uniforms for City Janitors.

WITH the renovation of the New York City Hall almost completed, George McAneny, President of Manhattan Borough, has decided that to be in keeping with the freshness of the building, the janitor, John Ryan, must be in uniform, and hereafter Ryan, who is also a plumber, gasfitter, all around mechanic and champion chess player, will appear in a blue suit with brass buttons. Mr. Ryan makes no comment on his changed condition, merely stating that he is obeying orders.

In order that the custodians of the other buildings of the borough may not feel slighted, Mr. McAneny has placed them in uniform also.

New York Examining Board of Plumbers.

THESE are busy days at 149 Church St., the home of the Examining Board of Plumbers of New York City, and the plumber who passes his examination and receives a diploma from the present efficient board of examiners will be duly qualified to grapple with the sanitary problems that confront the plumbing world of to-day.

We reproduce herewith the questions and plumbing plan which were used at the examination exercises on March 1.

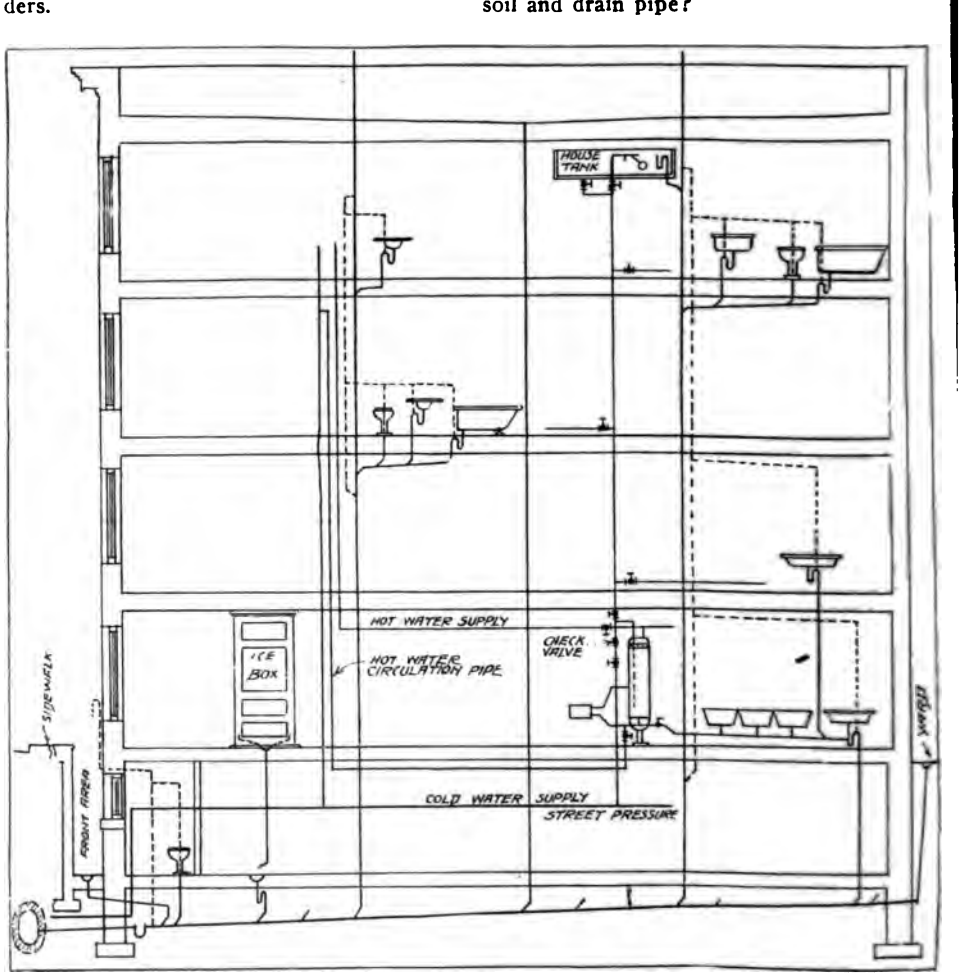
1. Where a vertical line of five-inch galvanized wrought iron soil pipe had been installed in a building and the work all completed, and it is necessary to put in a branch fitting on this vertical soil pipe on the second floor for additional plumbing fixtures, describe how you would place this branch fitting on vertical line.

2. Where should traps be placed in buildings?

3. Should a line of soil pipe be trapped? State reasons.

4. Is there any objection to long horizontal runs of cast-iron pipes for vent pipes?

5. How would you produce an inflow of fresh air and an outflow of bad air in a soil and drain pipe?



PLAN USED BY THE NEW YORK EXAMINING BOARD AT ITS EXAMINING EXERCISES MARCH 1.

6. Why does the plumbing department of the Bureau of Buildings require a peppermint test to the drainage system in a new building after the house drain and all vertical and horizontal lines of pipes have been tested with water?

7. If called on to turn off water supply and empty pipes in a private house which was to be closed for the Winter and where syphon jet waterclosets, baths, basins, etc., had been installed, how would you do it?

8. Where should traps for outside leaders, area and yard drains be placed?

9. What will cause a hammering noise at a kitchen hot-water range boiler?

10. Can waterclosets be flushed without a watercloset cistern direct from a supply pipe which supplies water to other plumbing fixtures? If so, explain how.

11. How many waterclosets would be required in a loft for manufacturing purposes where there were 60 men and 40 women employed?

12. What is the object of a fresh-air inlet valve?

13. What is the best watercloset to place in tenement houses? Explain why.

14. In placing a floor drain in the cellar of a building and connecting same to house drain, how would you do it and what precaution should be taken?

15. How would you connect the galvanized wrought-iron or brass branch vent pipe to a brass trap with a vent opening on trap?

16. What is the object in placing a safety valve on pipe over a hot-water boiler?

17. Is there any reason why wood house tanks where located inside of buildings should not be lined with sheet lead? If so, give reasons.

18. Why do lead hot-water pipes leak at times on the edge of a wiped solder joint?

19. Is there any objection to earthen wash-out waterclosets? If so, state some objections.

20. What is a vent pipe in connection with plumbing fixtures, and what is its use?

New Grand Central Station a Marvel of Engineering.

WHEN opened, upon February 2, 1913, the one hundred and eighty million dollar Grand Central Station in New York city exemplified the marvelous ability of America's grand engineering corps. The entire world has had its eyes upon this massive and apparently hopeless task, and while failure upon failure was recorded early in the history of its construction the indefatigable and able efforts of its engineers of every capacity have finally effected the greatest building of its kind in the history of the world.

Volumes of information have appeared in connection with its magnificence and utilitarian purposes, and it is not for us to attempt to enter into a complete description of the mighty accomplishments of the artisans of our own craft, and others, at this time. We will furnish a general idea of what we are sure will prove interesting to our readers.

Each and every one knows that the Grand Central Station is located upon Forty Second Street and Vanderbilt avenue, New York city. Its location is an ideal one in every respect. From every angle it is to be gauged as a civic center. It is the center of the most notable hostelries in the United States. It is in the heart of the shopping district; several blocks from the recently completed five million dollar library. Imposing churches are near at hand, and it is readily accessible from all corners and points of the Greater City, as well as from Long Island and New Jersey towns.

The total area of the new terminal is 79 acres, while that of the old was 23 acres. The total excavation was 3,200,000 cubic yards, 2,000,000 of which were rock. Forty-two tracks are upon the upper or express level and there are twenty-five tracks upon the lower or suburban level. There are upwards of thirty-three miles of tracks in the terminal.

At the street level the new station is 672 feet long, 310 feet wide and 150 feet high. Below the street level its length is 745 feet, its width 405 feet, and its depth 45 feet.

BIRD'S-EYE VIEW OF THE GRAND CENTRAL TERMINAL.

The capacity of the new terminal is 1,053 cars, while that of the old was only 366 cars. Five hundred thousand barrels of cement were used for the concrete construction.

Over the suburban level, in order to support the express tracks, covering an area of 38 acres, approximately 51,780 tons of steel has been used.

About 14,700 tons of steel have been used for viaducts and cross streets, aggregating 9,400 feet, about one and three-quarter miles.

There have been used in the main building 28,930 tons of steel.

In all there will have been used, as per present contemplation, 118,000 tons of steel for the roof of suburban level, street viaducts and buildings.

The largest interlocking switch and signal tower in the world has been installed. For the suburban level the machine has 146 levers, and 360 levers for the express level.

A DIFFICULT TASK.

One of the hardest jobs that the men who built the new Grand Central Terminal tackled was the removal and shifting of the city sewers, gas and water mains and the building of new ones.

There was a maze of pipes of all sorts under the old buildings and beneath the yard where the excavations were made. It is estimated by the engineers that in all about 25 miles of pipes and sewers had to be removed and replaced. About 10 miles of pipes had to be taken up before the actual work of excavation could begin.

The terminal building, as it should be, is the dominating feature of the group of buildings. It extends from 42d St. to 45th St. and from Depew Pl. to Vanderbilt Ave. At the street level it covers an area 301 feet wide and 722 feet long. Below the street level the station is 745 feet long and 455 feet wide. In devising the building, the architects say, it was planned to express the old terminal idea, that of a gateway to a city, and so the main entrance, or what will be the main entrance on 42d St. when the extension of Park Ave. is finished is made up of three arches, each 33 feet wide and 60 feet high. The whole forms a triumphal arch, or series of triumphal arches, surmounted by the sculptural group already mentioned and of which Whitney Warren, one of the architects, has said:

"In ancient times the entrance to the city was usually decorated and elaborated into an arch of triumph, erected to some naval or military victory or to the glory of some great personage. The city of today has no wall surrounding that may serve by elaboration as a pretext to such glorification, but none the less the gateway must

exist, and in the case of New York and other cities it is through a tunnel which discharges the human flow into the very center of the town.

"Such is the Grand Central Terminal, and the motive of its facade is an attempt to offer a tribute to the glory of commerce as exemplified by that institution. The architectural composition consists of the great portals crowned by a sculptural group, the whole to stand as a monument to the glory of commerce as typified by Mercury, supported by physical and mental energy—Hercules and Minerva."

The style of the building has something of the Doric motif, modified by the French Renaissance, with only enough ornamentation to relieve the severity of the classic lines. One of the architects has said: "It is not an art museum nor a hall of fame, but a place of dignified simplicity, easy of access and comfortable." The exterior finish is granite and Indiana limestone. In this building are the waiting rooms, concourses, baggage rooms and other facilities of travel. The principal room is the main outbound or express concourse. It is 272 feet long, 120 feet wide and 125 feet high. It is finished in Botticino marble and buff tinted stone. Only when standing under its vaulted ceiling is it possible to get an idea of the size of the place, and even then it is hard to credit the assertion that 15 regiments of infantry could stand at "parade rest" there.

Here is the heart of the station. From the south side of this room are the many ways that lead to and from 42d St., the main frontage of the terminal. Between them are located the ticket offices, information booths, parcel room, baggage and checking booth, and other general facilities for the traveler. At either end are low galleries, one opening on the carriage entrance upon the overhead way of the new Vanderbilt Ave. at the west side of the station, the other designed as an exhibition place for the famous "De Witt Clinton Train," the engine and group of tiny cars that made the first trip upon the old Mohawk & Hudson Railroad in 1831.

The suburban concourse lies directly beneath the express concourse and is similar in size except as to height of ceiling. The space under the waiting room on the suburban level is used for a lunchroom and restaurant.

The concourses are so arranged that the train gates are in full view as soon as you enter and the indicators so conspicuous that the desired track and train can be seen from any part of the room. It would be hard to go astray even if there were no attendants to help.

From the concourse passengers pass to the cars down ramps of easy grade which have replaced all stairways.

HEAT, LIGHT AND AIR PROBLEM.

The problem of supplying heat, light, air and water to from 75,000 to 100,000 persons who pass through the terminal daily was a big one in itself, and a little army of architects and more kinds of engineers than you would believe existed have been hard at work on it for eight years.

Power is the source of all these things, and since in the terminal trains run where power machinery is generally located it was necessary to build a power plant up in the air. Engineers perched it up on steel stilts over the terminal yard and distributed the 28 boilers that furnish 17,400 horsepower on the second and third floors.

This made it possible to put the power and heating plant on, or rather over, a plot only 100x90 feet. The two smokestacks, each 17 feet in diameter and 200 feet high, are disguised as Egyptian pillars, and two other pillars at the other end of the plant conceal a water tank of 30,000 gallons' capacity.

The coal to run this big plant comes in by the trainload in what would be the cellar of the place if it had one. The plant eats up from 700 to 800 tons every 24 hours. The hot water used in heating the general post-office and the station buildings comes from this plant and travels through pipes and tubes over a mile before it finishes the circuit.

Pipes carrying hot and cold water, steam and compressed air run all through the yards, and there are vacuum cleaning connections accessible to every car. There is also a complete fire-fighting system for both levels, with nearly 300 hose connections, and a fire-alarm system provided with 125 boxes connecting through a central point from which the city department may be called should a blaze get away from the railroad's fire-fighters. But this is not likely, since as the station and everything connected with it is built of marble, steel, concrete and similar non-inflammable materials, and the trains are made up of steel cars, it is hard to see what there is to burn.

To make sure that no matter what happens the station will never be without light, there has been established a duplicate lighting supply, and 10 per cent. of all the lights are carried on an entirely independent system. The electric-signal system, said to be the only one of its kind in the United States, an almost human plant that cares for safe operation of the maze of switches, can only be mentioned here.

The terminal is equipped with 25 enormous fans, which will supply a million cubic feet of air a minute. Drinking water will be filtered and distributed to convenient parts of the station by a special pipe system. As for heating and lighting the terminal, great pains have been taken to see that passengers are made most comfortable.

WHEN WAITING FOR TRAINS PASSENGERS GAZE INTO THE HEAVENS.

If you look skyward in the main concourse of the Grand Central Terminal you may well believe that there is no roof to to the building and you are viewing the heavens. The great arched ceiling has been turned into a section of the Celestial sphere. There is an expanse of torquoise-blue, a sky of southern Italy, the contour of the ceiling lending iself to an effect of illimitable space.

As a whole the view presented is that of a section of the heavens as they appear in the months from October to March, or from Aquarius to Cancer. Two broad bands of gold sweep across the ceiling from east to west, representing the ecliptic and the equator. The signs of the Zodiac in progression are Aquarius, Pisces, Aries, Taurus, Gemini and Cancer. Besides the signs of the Zodiac, there are constellations familiar to those who have but a slight knowledge of astronomy.

The ceiling is studded with 2,500 stars, and the constellations are illuminated. The Milky Way, represented by many tiny stars, stretches from the southwest to the northwest.

Whitney Warren, of the firm of Warren & Wetmore, architects, developed the idea. The work was executed under the direction of Charles Basing, of the Hewlett-Basing studio. Paul Helleu, the artist, was consulted, and it was his idea to illuminate certain stars in order to give them greater perspective. In order that there would be astronomical accuracy, Prof. Jacoby of Columbia University was consulted.

IMPOSING ELECTRICAL EQUIPMENT.

Electricity made the new Grand Central Terminal possible. Electricity and its use are important in two divisions, the powerful motors and the switching system.

Without the electric motor it would have been impossible to build up a terminal as complex and as complete as the Grand Central in the heart of the city. There are 79 acres of tracks in the terminal. They had to be placed under the street level, and it is the electric motor which enabled the engineers to do this satisfactorily.

To have operated coal engines beneath the surface was out of the question. They are too noisy, too smoky.

The electric motor, powerful, clean and swift, has permitted the underlying system of tracks. Coal and steam have been banished, and in their place is the new machine, silent, handy, without soot or annoying features.

The electric zone of the road extends for a distance of 25 miles from New York. Incoming trains will have their road engines cut off and replaced by the electric motors, and outgoing trains will lose their motors and take on locomotives. These motors are capable of developing 4,000 horsepower and weigh 115 tons each. They can pull the heaviest trains as surely and as steadily as the heaviest locomotive, and can back and pull quicker than a locomotive.

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THOMAS C. CUMMINS, the son of "Tom" Cummins, one of the popular and well-liked veteran master plumbers of Manhattan, and a trustee of the New York Master Plumbers' Association, has associated himself with the New York Continental Jewell Filtration Co. as New York City salesman. Mr. Cummins, through his connection with his father's business for so many years and a valued trade experience, is exceedingly well qualified to engage in the distribution of filters. He has always been popular with the members of the association and the supply trade as well, and we can see naught but success in his new position. He will have his headquarters at 15 Broad St., New York City.

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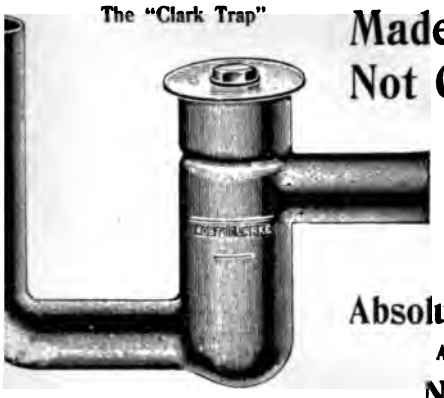

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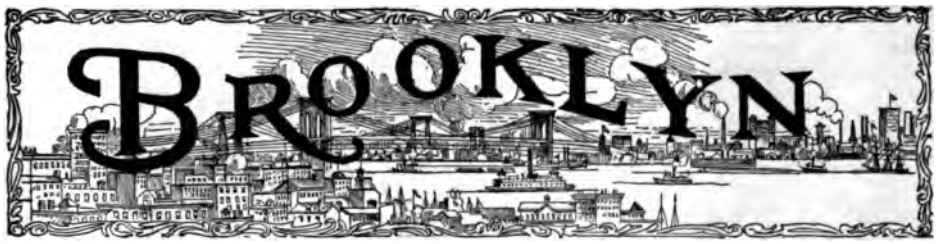

GROUND was broken for a comfort station on the Williamsburgh Bridge plaza Feb. 25. It will be located at the extreme end of the plaza, at Havemeyer St., between S. 4th and S. 5th Sts. For years the citizens of the Eastern District have agitated for a comfort station.

Two years ago the matter was brought up at a meeting of the Grand Street Board of Trade by John J. McManus and Herman Naeher, and they were appointed a committee to call upon Borough President Steers and urge on him the necessity of the improvement. President Steers said he would give it his immediate attention, but nothing was done.

Then the members of the Seymour Club of the 11th Assembly District took up the matter; and John McKeon, chief clerk of the Manhattan Ave. Police Court, and a committee of his associates in the organization waited on President Steers who promised them that the comfort station would be constructed as soon as the necessary money had been appropriated by the Board of Estimate and Apportionment.

Progressive Brooklyn Master Plumbers.

MEEKS BROS., 473 52d St., Brooklyn, took occasion to display high-grade plumbing fixtures upon their float in connection with the recent subway parade. The parade in question was to celebrate the decision to continue the subway to Fort Hamilton and eventually under the Narrows to Staten Island. Meeks Bros. have been pioneer plumbers in this section for 20 years and have done much to add to the health of the Bay Ridge and Fort Hamilton community through their multitudinous sanitary installations. The president of the concern, James L. Meeks, was formerly president of the Brooklyn Association of Master Plumbers. Both he and his brother, Chris., are active and enthusiastic associate members.

MEEKS BROS.' PRIZE-WINNING FLOAT IN BROOKLYN, N. Y., SUBWAY PARADE. ONLY FLOAT SHOWING HIGH-GRADE PLUMBING MATERIALS.

Brooklyn Delegates to New York State Convention.

AT a regular meeting of the Brooklyn Master Plumbers' Association of Master Plumbers held Friday evening, Feb. 14, the following delegates were elected to attend the New York State meeting to be held in Buffalo March 11 and 12:

Delegates—Thomas E. O'Brien, Matthew J. Kennedy, Edward Macdonald, John J. Dixon, James Jarcho, Patrick H. Gleason, George F. Tracy, Thomas F. McEnaney, Ignatius P. Byrne, John W. Sands, Michael F. Gleason, Edward J. Belford, William Eierman and James T. Keenan.

Alternates—Louis Kayfetz, J. Louis Bosch, Robert E. Dingman, James Johnston, Frank J. Bryan, Michael J. McGrath, Louis Frisse, William A. Nugent, Joseph F. Corcoran, Martin J. Hayden, Louis P. Gfroerer, Harry Voletsky, John Gunn and Walter A. Rea.

NEW YORK STATE NEWS.

COMMISSIONER GREENALCH being urged by the master plumbers of Albany, N. Y., to have provisions made so that the city may in the future dig all trenches in streets. The city now closes up these trenches and restores the pavement. The commissioner said he favored the recommendation, but does not believe that it should be made mandatory.

J. M. Thompson, of Chester, N. Y., has secured the contracts for plumbing in the colleges in Westchester.

Smith & Shebel, of Monroe, N. Y., have secured the contracts for several houses, as soon as the weather gets settled.

The partnership of Hauxwell & Smith, of Portchester, N. Y., will hereafter be known as Hauxwell & Smith, Inc. Richard J. Hauxwell will be president, C. Edwin Smith vice-president and Robert Burns secretary and treasurer.

The plumbing and heating contract for the new high school building at Great Neck, N. Y., was given to Johnson & Johnson, of Connecticut.

Charles G. Clapp, formerly with the United Sanitary Plumbing & Heating Co., of Utica, N. Y., has resigned as director of the company and has severed his connections with the company.

Shepard & Goodwill, of Gloversville, N. Y., are installing a new Studebaker heating plant in the new broom-handle factory of the Durey Land & Lumber Co. recently erected at Green Lake.

R. S. Maloney and Frank Robbins, both of whom have been connected with the plumbing business in Gloversville, N. Y., for several years past, have formed a partnership which will be conducted under the firm name of Maloney & Robbins at 21 North St. The firm was organized a few days ago, when Mr. Robbins became associated with the business which Mr. Maloney has conducted for some time past.

Plumbers' License Ruling.

SOME few days ago the plumbers' examining board of Buffalo, N. Y., sent a communication to Corporation Counsel Hammond asking his opinion concerning the right of the board to accept the application of a plumber who was not a citizen of the United States and if the board could rightly give a certificate to such person even if he passed the required examination making him a regularly licensed plumber. Another question asked by the board was whether it could give master plumbers' papers to a man who passed the examination for such papers but had not

arm. Corporation Counsel Hammond eb. 22 handed down a decision covering : questions.

eaking of the ordinance requiring a tered plumber must be a citizen, Judge mond says in his opinion: "This or- nce might prove a handicap to a plumb- his business if he is not a citizen, but d not, in my opinion, prevent his r- ceiving a certificate upon having passed a satisfactory examination conducted by the board."

A plumber who has lost one arm, says another part of the opinion, cannot be refused an examination for master plumber's papers, as such a man "might supervise or direct work as well as a man who had both his arms."

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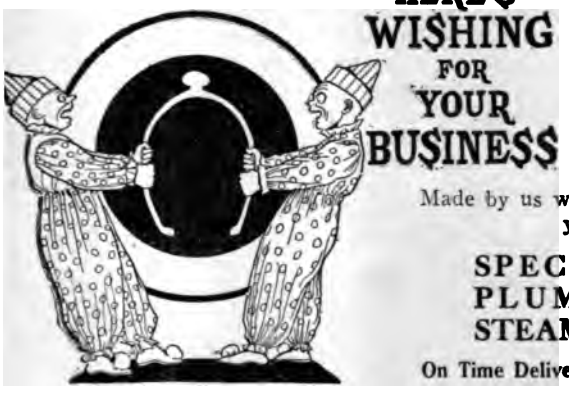

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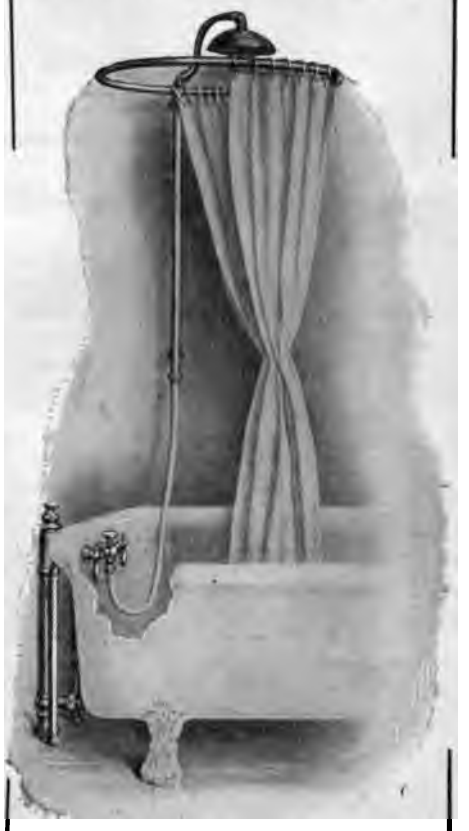

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Pollution of Streams by City and Manufacturing Sewage and Wastes.

By JOHN W. HILL, C.E.
Member of the Ohio State Board of Health.

THE State of Ohio, as well as owners of riparian rights, are justified in demanding that our streams be maintained in the same purity that existed previous to the settlement of the State and establishment of cities and towns, less such pollution as must unavoidably come into the stream from the run-off of rainfall on farm lands.

Of course, the pollution from the run-off of farms is not regarded as highly dangerous to health or as calculated to seriously injure the quality of the water in the streams by reason of the dilution, and in any event it is obviously impossible to prevent the free run-off from rainfall from the farm lands during storms, and aside from such pollution as may get into the streams by this means, all other causes of stream pollution should be regulated or prevented.

Where sewage disposal works are adopted the provision usually is made to receive and treat the first rush of sewage following a heavy rainfall, and allow the surplus or excess of sewer flow to be diverted directly into the stream which receives the effluent from the disposal works, or has heretofore received the flow of sewage and storm water from the sewers. Of course, where the city or town is provided with strictly sanitary sewers, as a rule no storm water reaches these, and the flow to the disposal works is unaffected by storms, but in those instances where the sewerage system is constructed on the combined plan, then the natural sewage flow or dry weather sewage flow usually represents a very small per cent. of the capacity of the sewers. And as stated, disposal works connected with combined sewers, are usually so planned as to deal not only with the dry weather flow, but in addition to this, it will take care of the first washings from city streets, house tops and lawns, and allow the later flow, or the excess flow through the sewers, to be weired or otherwise discharged directly into the stream. In such cases the after-flow in the combined sewers is not calculated to do great damage to the streams, and a portion of the diluted sewage is thus sent direct to the streams without treatment.

The dilution in the streams will usually be sufficient to render the small amount of sewage innocuous and with the increased current in streams during storms such sewage will be carried to the larger streams or to a safe point of outfall, and the actual pollution of streams by sewage under conditions of heavy rainfall and sewer flow would perhaps be no greater, if so great as the unavoidable pollution from the run-off from farm lands.

The general theory of sewage purification is that the effluent shall not be putrescible or give rise to nuisance when it enters the stream, or is used for irrigation. It has sometimes been suggested that a sewage effluent should not be destructive of fish life and if we should hold to this proposition, then it is possible that we may be able to produce a non-putrescible effluent that will not create a nuisance and yet be destructive to fish life, that is to say, it may have an inhibitive effect on fish life as well as depriving the fish of such food as may be ordinarily furnished in the sewage effluent.

It is obvious that if the sewage effluent from a disposal works compares upon chemical and bacteriological tests favorably with the water naturally flowing in the streams, any condition better than this would not only add to the cost of treating the sewage, but be unnecessary and ineffective with regard to the quality of natural stream flow.

Sewage disposal works, however well planned and built, will really be worthless as sanitary devices if they are not kept up and managed by skilled attendants. The great and successful works of sewage disposal abroad are in the hands of masters of the art, who keep in close touch with every material variation and change in the character of the sewage coming to the station, and in the character of the effluent running into the streams, and of all the other results of modern sewage disposal. But where a disposal works is built for a small town and skilled management is not in charge of it, it is hopeless to expect the best results from such work. This suggestion leads to the conclusion that cities and towns building disposal works must face the problem of proper cost of maintenance and operation of such works. It is just as important that a small works be skilfully operated, but it will cost relatively more for small works to be thus managed than for large works, because the amount of labor per unit volume of sewage treated will be larger in the small works, while the cost of a competent unit of labor will be about the same, in both instances.

Some people, among them some engineers, overlook the fact that there are many difficulties surrounding the problem of sewage purification, not to be contended with in the filtration and purification of a public water supply from so-called polluted lakes and rivers. The natural condition of water taken for a public supply and filtered is very much more uniform from day to day, and the changes which may take place in it from season to season, are much better understood in the operation of water filters, the case with sewage, which is rapidly in character, sometimes fr to hour, and certainly as between and night run of sewage, and the works must be constructed and in a way in which these rapidly ing conditions can be successfull with.

On the other hand, we are nc upon to purify sewage until it is use as drinking water, while wit filtration works this is the objec obtained, and it is expected that fluent from water filters will be al safe for drinking and other dome before it enters the distributing m notwithstanding the higher degree fication required by water filters final production of a water that carry disease and death to its us real problem of sewage purification difficult to solve even with t planned disposal works than it is filtration or purification of pollute supplies. So that cities and towns a engineers, who plan and operate works, should be thoroughly in with the gravity of the problem th taken in hand. I think it cannot cessfully disputed that the majority age disposal works are not as succe they should be in operation to the popular and righteous demand provement in the quality of our water courses, and this failure often due to the carelessness or training of the engineer who is call to plan the works, the mistakes beir either in the character of the works for the treatment of a particular in building works inadequate in ity and in forcing the treatment sewage at too high a rate to pr proper effluent.

It cannot be too forcibly impress municipal authorities and the engine ployed by them to design sewage works, that a successful works place is not to be taken as a criter a works at another place, and i cases where long continued and investigation of the sewage flow i tity and quality cannot convenie made, a study of all the physical co influencing the flow and quality of should be made, in order that the may be proportioned and adapted to isting and probable future conditi

The strength of the sewage to b with, as well as its character, will marked influence on the type of wor fitted for its treatment, in order to a non-putrescible and non-nuisance ing effluent.

Some sewages work well in septic while others are not adapted to this of preliminary treatment. The tank can be used under two conditio where the sewage flowing throug channel will within a short time b charged into a large body of wate rapidly flowing stream, or where t fluent is delivered to contact or pe ing filters, and this is true of septic in general. Although there are ins in which it has been assumed that th

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nk or some acceptable form of the ank alone was sufficient for success- wage treatment, without regard to nditions of discharge of the effluent leaves the tank. Any objectionable y in the sewage flowing through an tank when it leaves the tank, re- practically unchanged excepting by of the flowing sewage with the at- re, until it reaches the point of out- The confusion which has risen in nds of some as to how much can be ed from the Imhoff tank and other tanks when operating alone has t some of these devices into dis- nor through any inherent fault in ks, or even in their design and oper- on through the false expectations of complete purification by means of ks alone.

he Emscher district of Germany, the effluent from the Imhoff tanks ered into rapidly flowing streams or into channels which maintain a constant and reasonably high velocity of flow, and the effluent is delivered into the River Rhine, in which the dilution of the sewage effluent is very high, doubtless the tank operating alone in conjunction with the physical conditions of stream flow and points of outfall that follow the flow of sewage through the tank is found to be sufficient, but this does not mean that if the conditions after the passage of the sewage through an Imhoff tank are not equivalent to this found in the Emscher district that the tank alone can be accepted as a complete purifying device. The effluent from the Imhoff tank may be further treated with reagents or be passed on to filters of proper type.

Domestic sewers may not very largely as between different cities and towns in the same country, but the character of the sewage from manufacturing establishments will vary largely, depending be nature of the manufacturing interests in each place, and as the quality of the sewage thus obtained in each city will probably be maintained without great change for years after the construction of disposal works their construction and mode of operation should be adapted to the nature of the sewage to be dealt with.

As an example, Washington, D. C., which is wholly a residential and mercantile city, will furnish a sewage unlike that of Philadelphia, which is a residential, mercantile and manufacturing city, and the distinctive character of the respective sewages will probably be maintained for all time to come. The sewage of Newark, N. J., with its great number of tanneries and leather working establishments and hat factories will be unlike that of Cleveland, where the manufacturing interests are mainly connected with the fabrication of iron. cities exactly alike or nearly probably require the same n

age disposal, but the cases are rare where any two cities are so nearly alike with respect to residential, mercantile and manufacturing interests as to justify the conclusion that the method of sewage disposal adopted by one would be equally well adapted to the other.

It is a mistake to assume that the majority of sewage disposal works in this State or out of it are successful, as a matter of fact, they are not so. Concerning the most modern and largest sewage disposal station in the State, at Columbus, the writer of this article has heard several complaints from residents within a mile or less of the station, with regard to the unpleasant odor that is sometimes manifest, even to a nauseating degree, at this distance from the works. In a recent report to an eastern city by two of its city engineers, it is stated that complaints have been made of this odor from the Columbus station by residents a mile and a half from the works, and that the odor at times is so pungent and disagreeable as to make life almost unbearable to the people who live to the leeward of the station during the summer season. It may be that the effluent as delivered in the Scioto River is nonputrescible and causes no nuisance below, but complaints even with respect to this condition have been made, and a works subject to such complaint can hardly be considered a complete success for the disposal of city sewage. Nauseating odors permeating one's household during the season when doors and windows are open for free ventilation, are to be construed in the nature of a nuisance and may be calculated to impair health and to damage property, especially if this property, as some of it around the Columbus station, is used for summer residences by people doing business at the capital or often for permanent residences. It is not my purpose to condemn the disposal works here in that city, but to call attention to complaints that have been made and to point to the causes of these complaints, and to use them to show that sewage must be disposed of in a way to create no nuisance or impair health, either with respect of the sludge and effluent, but also in the operation of the works. If the Columbus sewage was digested in Imhoff tanks, and the tanks did their work as well here as they are said to do in Germany, then perhaps no odor would arise from the effluent passing from the tank to the percolating filters or from the stored sewage in the sedimentation tanks.

The subject of stream pollution is intimately associated with the disposal of city wastes, even in the large cities where ashes, rubbish and garbage and street sweepings are separately collected, and the garbage is reduced to oils and greases and the "tankage" disposed of for fertilizer. Where garbage and ashes from the household only are collected there is still a very considerable amount of rubbish that is generally disposed of on the bank of some near-by stream in a very crude and barbarous manner, often to the destruction of the natural beauty of the stream and presenting to sightseers a picture which no one can look upon with pride.

In some of the larger cities an effort is made to require every householder and every manufacturing establishment which has solid wastes not admissible to city sewers and yet representing material that is collecting daily about the premises and which must be removed and properly disposed of in the interest of sanitation, good taste and cleanliness, to have these placed in proper receptacles and to make daily or bi-daily collections and disposal of all such material, and in this manner prevent the soiling of stream banks with old tin cans, bottles, boxes, barrels and waste paper, cast off articles of dress, rejected bed clothing; and often garbage and ashes are disposed of by being dumped along the banks of streams. It is possible for every town, however large or small, to guard against this defilement of the streams of the State.

From some factories the great bulk of the waste material is combustible, and can readily be cremated in a properly designed furnace. The general practise in England is to destroy all ashes, rubbish and garbage in furnaces known as "destructors," where all the fuel required for maintenance of combustion is furnished by the waste material. When the material is disposed of in this manner the resulting products are "clinkers" raked from the furnace grates, and steam obtained from a boiler placed in the pathway of the waste gases from the furnace to the stack, and after using a small percentage of this steam for the operation of an engine and blower to supply air under the furnace grates, the remainder may be utilized for some purpose which will produce revenue or reduce the cost to the municipality for electric lighting or for steam heating of some public institution which may be located near the destructor without offense to its inmates.

Take a small town having its own electric lighting plant and part or all of the steam required to operate the generators can thus be obtained at only the cost of collecting the ashes, garbage and rubbish and reducing the wastes to clinkers and steam in a combustion furnace. The clinkers thus obtained may be used as foundation of macadam roads and if very hard clinker is obtained it can be reduced and used in concrete, especially where the concrete is not to be waterproof or subjected to great compression loads.

In villages and towns where new streets are constantly being made, the clinker will always find ready use, and otherwise can be sold to take the place of boiler cinders for the laying of concrete sidewalks and for use in making private macadam driveways.

Looking at the matter from a sanitary and esthetic point of view the practise of dumping refuse into our streams should cease, and towns and villages be required to dispose of their wastes in a more modern and less offensive way. Where "destructors" are used abroad all the household wastes are put through these, the only exceptions being that of tin cans and bottles, the tin cans when collected and properly treated will yield an amount of tin, and scrap iron which will yield a profit. The tin will have a relatively value, and can be run into bars and i and sold to brass foundries and foundries, or be used in the manufa of solder, or when properly mixed new tin be used again in tin plate o tions, while the iron can be melted new pig iron and turned into sash we or some other cheap commodity whi constantly in demand. Where the duction of tin and iron from old cannot be conveniently carried on at site of the "destructor" or waste dis station, it can be packed in barrels crated and sent to some near-by large where the proper reduction can be eff ed. Bottles can be put through the structor" and will form part of clinker, although it is preferable to co these and let them be separately dispo of.

The chief drawback, especially with smaller cities, in disposing of housel wastes is the cost, but as there is very tle that we can accomplish in the way sanitation without cost, this cost should cheerfully provided for by the people. the sense of municipal decency and cl liness that will follow a careful and c plete collection of household wastes their utilization in the "destructor" justify the small per capita expense quired to effect it.

The treatment and disposal of manu turing wastes should be effected on premises, the use of our streams for posing of the wastes from mills and tories is all wrong. Whatever produ obtained from our commercial opera that constitutes a waste or something wish to get rid of should be disposed o some proper manner on the premises, o least some point where the effluent ca pollute our streams. The wastes i factories which is run into streams is only offensive, destructive to fish life dangerous to the users of the water, often creates a positive nuisance m from the point where the wastes are troduced into the stream.

Many suits instigated by owners of parian rights have been tried and as a have resulted unfavorably to the manu turing interests found guilty of stream lution. Statements are sometimes m by the manufacturing interests that if do not permit them to use and pollute streams with the refuse from their wo that they will leave the State or leave particular locality where the complaint raised. But I do not believe this calam is liable to happen in many cases.

The use of the streams to reduce m ufacturing wastes is incidental to some the primitive methods employed by manufacturers in conducting their ope tions, and there must be some comparati ly inexpensive and non-offensive method disposing of their wastes from manuf turing operations. Waste from str board works, for example, consists water and combustible solids, the lat of which can be burned and destroyed not utilized in some way after a portion the water has been removed and the wa that still remains is found offensive, c be improved by filtration and the appli

HE BRAYMAN WATER-TIGHT DRAIN BOX

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Prevents water from entering concrete.
Can be used for cast iron or screw pipe.
Costs no more than the old-fashioned kind.
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proper chemicals, until it will no constitute a nuisance and can then into a near-by stream without cre- nuisance or injuring the natural of the water flowing in the stream. factories reject or waste large s of lime, if this has value as a it should be disposed of to the near-by farming interests, and if the farmer is not willing to go and get it, then the manufacturer should provide means to transport it to the farmer.

Possibly careful study of the matter may show that lime wastes are capable of being worked into useful and salable by-products, whether this be true or not is

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SPECIAL ATTENTION PAID TO PLUMBERS AND ROOFERS' S
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left to the manufacturer. The using of our streams as the receptacle of wastes by the manufacturer should cease on the broad principle laid down in the beginning of this paper, that the farmer and those enjoying riparian rights and in fact everyone who is interested in the purity and beauty of our natural streams, is entitled to have the water flow down such streams in a state as near that of nature as is possible after the adoption of rigorous rules to effect methods for the collection and disposal of the manufacturing wastes.

Possibly to effect this will impose an increased cost to the manufacturer for his marketable products, and the expense of disposing of his wastes will thereby be borne by his customers, but it is scarcely possible in any instance that this can add very much to the price of the commodity that he manufactures, and it is hardly likely to place him at a disadvantage with his competitors, because they who reside in the same State will be bound to observe the same rule that he obeys with respect of waste disposal, and once the practise is established in this State or in any other State of thoroughly protecting our streams, the habit or whatever it may be will be apt to be adopted by other States and will place manufacturers on the same level so far as the cost of producing their wares and disposing of their wastes is concerned.

In some cities and towns garbage is collected and reduced by one of the two well-known methods for garbage reduction, while ashes and other wastes are carried to dumps and either thrown into near-by water courses or employed in the filling of lands lying below city grades. There is a serious objection to using ashes and rubbish or even street sweepings in land fillings for fear of slow and constant decomposition of such organic matter as may be collected with the other materials and render the land so filled unsanitary and dangerous to health if built upon for factory or residential purposes.

Where sewage is disposed of by septic or sedimentation tank methods, the sludge is sometimes used for land filling, but this should not be the practise excepting where there is a thorough digestion of the sludge and all readily decomposable matter removed from it.

The sludge from Imhoff septic tanks is said to be thoroughly digested in the sludge chamber, and odorless when removed from the sludge chamber, and can be used for land fillings without objection or spread upon the land and left to dry or be ploughed in. But it is very doubtful if there is much fertilizing property left in thoroughly decomposed sludge and it is also doubtful if the sludge when ploughed into the land will contribute much to the growth of plant life. At any rate it is innoxious, odorless and not calculated to do harm from a sanitary point of view or create a nuisance.

The most difficult problem in the prevention of stream pollution is how to deal with the wastes from manufacturing establishments. The collection and reduction or destruction of garbage, and the collection and destruction of ashes, rubbish and street sweepings is not difficult nor will it as a rule add to the cost of city government, because the available products, "steam" and "clinker" can be turned to profitable account or be sold; but the manufacturing wastes involve complex and difficult problems, if their disposal is to be accomplished in a sanitary way by economical processes. No manufacturer pollutes the streams carelessly or maliciously, but wholly because they now furnish the most ready and least expensive method of sewage or wastes disposal. In some cases valuable by-products can be obtained from factory wastes, enough to pay all or part of the cost of treating the wastes, and when our manufacturers realize that they must stop polluting the streams, methods will be forthcoming to aid them in the work. Conditions such as we can find in many places in the State, would not be tolerated in England and some parts of France and Germany, and our manufacturing interests must soon realize that their contributions to stream pollution must cease.

OBITUARY

Julius Laube, Brooklyn, N. Y.

Julius Laube, for many years in the plumbing business in East New York, where he was long a member of the Concordia Singing Society, died Feb. 15 last at his home, 462 Glenmore Ave., after a month's illness. He was born in Germany Jan. 25, 1871, and leaves a wife, Annie Mayer, and two daughters — Helen and Alice Laube.

Wilfred F. Heroux, Central Falls, R. I.

Wilfred F. Heroux, a resident of Central Falls for the past 15 years, died at his home on Ledge St. in that city Feb. 27 after an illness of about four months, caused by a complication of diseases. For several years he was engaged in the undertaking business with his brother Lucien, but the firm was dissolved about four years ago, and Wilfred went plumbing business. He wa: a m Jacques Cartier Society, Moder men of America, and Knights of cabees. He was unmarried, an vived by seven brothers, Adam, Ulderic, Lucien, Arthur, Jo Charles, and a sister, Mrs. Joh ick.

Thomas Oakes, Hartford

Thomas Oakes, a well-known the Masonic and military life of Conn., and probably the olde plumbing contractor in that city. 24 at nine o'clock at his home, 1 ington St., after a few days' i pneumonia. Although 75 years Oakes enjoyed excellent health, stricken suddenly with pneumonia never rallied, growing steadily w til death came. Mr. Oakes was Manchester, England, Nov. 2, 18 when a young man learned the p trade in that city. He was ma England and came to this coun his family during the civil war, tled in Hartford, where he had sided, being very successful as a contractor. He had a fondness f tary and fraternal life, and before his native country was a sergeant Lancashire Royal Engineer Volunte was a member of the Connecticut al Guard, being a former color ser the First Regiment and was forme poral of the First Company, Go Foot Guard. In Masonic circles very active, being a member of Council, R. and S. M.; Washingto mandery, K. T.; Sphinx Temple, N. M. S.; Hartford Lodge, F. and and Pythagoras Chapter, R. A. M. his widow he is survived by eight They are Mrs. Charles Yates, Mr Seymour, Mrs. R. C. Penfield, Mr Morris, Mrs. W. M. Corkins, T. Oakes, J. Albert Oakes and Wi Oakes, all of this city.

Henry Segnor, of Texarkana, opened up a new plumbing and ele at 222 Vine St.

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McNab & Harlin Manufacturing

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Best Drainage Fittings in the world

Large stock in black and galvanized. Immediate deli

Automobile service between factory and New Yo

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New England News.

THE certificate of incorporation of the S. Lyman Co., of New Haven, Conn., a plumbing concern, has been filed with the Secretary of State. The capitalization is $10,000 and business will begin with $1,000. The incorporators are Samuel Lyman, H. Lyman and Julius Lyman.

E. Allen has announced that he will conduct a plumbing business at his home in Southport, Conn.

Thomas Russell, of North Adams, Mass., is to install a modern system of heating in the Russell property on Park St.

Mosley & Maschin, of Westfield, Mass., who were burned out some time ago, have fitted up a fine showroom and shop at 19 School St. in that city.

New Corporation at Montpelier.

PAPERS have been filed in the office of the Secretary of State incorporating a hardware and plumbing business in Montpelier, Vt., the officers being: President, John W. Peck; treasurer, Nelson W. Peck, and assistant treasurer, Maurice W. Dewey.

The new company will merge the plumbing and heating business of Peck Bros. with the hardware store recently bought by Mr. Dewey of Fred Blanchard, and Mr. Dewey will act as manager of the hardware store, which will be conducted separately.

It is expected the building at the rear of the Lawrence building, now occupied by the Capital Garage, will be utilized by the new company as soon as the present lease expires.

J. W. Peck is one of the pioneer plumbers of the city and his son, Nelson, has been associated with him several years. Mr. Dewey is the son of the late William T. Dewey and has been employed by Peck Bros. for some time, getting an insight into the plumbing and hardware business.

Long Strike Over in New Haven.

THE plumbers' strike, which has been on in New Haven since last May, was definitely settled Feb. 16. Negotiations were renewed by National Officer Sheehey, of the plumbers' organization, and to him is due considerable credit for suggesting a basis for permanent adjustment of the difficulties.

The plumbers met Feb. 16 and almost unanimously voted to accept the conditions proposed. It is understood between both sides that these conditions will not be made public, but it can be stated with authority that they are more or less agreeable to both sides.

The fight has been a long and bitter one and there is general satisfaction that it is at last peacefully concluded. The men will return to work at once, that is, such of them as there is work for at this time, which is a dull season of the year. There is little or no difference as regards wages.

Discomfort in a Comfort Station.

THE new public comfort station at Brockton, Mass., is insufficiently heated and without proper ventilation, according to word that has come to the new public property committee, and an investigation is to be made and suitable alterations made to correct the conditions.

Alderman John R. Sinclair, of the committee said: "The heating system is so insufficient that the caretaker in the woman's side has to keep an oil heater burning when the weather is cold in order to keep comfortable. The station being beneath the ground is cold anyway, and there is not anywhere near enough radiation to heat the place as it ought to be heated. The ventilation is practically useless. The fan, which is kept in motion and is supposed to keep fresh air in the place, does not cause any suction at all and is practically worthless."

Members of the committee remarked that for a station just built according to modern methods and at a cost of $10,000 it was in a bad condition from this standpoint alone, to say nothing of the fact that no provision was ever made for a place for the caretakers of the place to stay.

Kansas City Women's Auxiliary Donates Fountain.

THE women's auxiliary to the Kansas City, Mo., master plumbers' association has presented the city with a magnificent sanitary drinking fountain, which was dedicated with imposing ceremonies on Sunday afternoon, March 9.

The fountain is erected on Twelfth and Grand Aves., and the auxiliary has the proud distinction of installing the first sanitary drinking fountain in Kansas City by a woman's organization.

A Handy Catalogue.

WE are in receipt of the Trenton Potteries Co.'s new catalogue "L M," beautifully illustrated with new and attractive designs. In comparing this catalogue with the company's last "K H" catalogue it is noted that many of the illustrations have been changed. Therefore, in order to avoid confusion, the company advises the use of the prefix of "L M" to all plate numbers when ordering. An innovation in the new catalogue is the placing of the fitting numbers on all brass trimmings.

In compiling this catalogue nothing has been left undone to make it one of the most comprehensive and valuable books that the

company has ever published. It is size, and the feature which will most to the plumber is its simplicit indexed in such a manner that t architect or plumber can find any fixture at a single glance.

Every plumber should have this catalogue before him. A postal Trenton Potteries Co., Trenton, N. bring him one by mentioning th CHANT PLUMBER AND FITTER.

Plant at Lewisburg, Te

ANOTHER new industry for ton, Tenn., is a plumbering be established there at once W. Gowan, of Shelbyville. This third new industry to locate there the past few weeks, the first being dry and the second a foundry c with a capital of $50,000. Work buildings will begin at once.

B. Grunwall, of Omaha, Neb., h given the contract for the plumbi heating in the new hotel at Hasting

the out-of-town salesman to load up the plumber with goods just because he can allow from 60 to 90 days' time; in other words, do not buy gross lots when dozens will do for the sake of the 5 per cent allowed the customer.

A few years ago, while my wife and I were taking a ride on a sight-seeing car in Denver, Colo., the "spieler" in showing the various points of interest pointed out a small cottage on a side street. "There," he said, 'lived Mr. Blank, a very good man who used to be in the plumbing business. He was a widower, and when he died he left everything to the orphan asylum." Being of an inquisitive mind, and a fellow-craftsman, I said: "What did he leave." The answer was: "Eight children." Being the father of only seven myself, I won't be obliged to encumber the county with such a large bequest.

Great credit may be claimed by our craft for the decrease in epidemics of the typhoid, yellow fever and cholera caused by unsanitary conditions. The last two diseases have been almost obliterated by sanitary plumbing and ventilating systems. This may be illustrated by the improved conditions in the Panama Canal zone, where it was formerly dangerous for white men to live before the new and improved sanitary conditions prevailed. Certainly the plumbing business has some virtues.

Kansas City, Mo., can boast of one of the strongest and best local associations in the country. During the past year our number has been doubled and a great deal of interest shown. The Ladies' Auxiliary, organized two years ago in this city, has been of great help to us in sustaining the interests and binding the members more closely together.

The great difference in prices asked by various firms is amazing; as for instance, the matter of taking out a 30-gal. range boiler and replacing it with a new one. A demonstration lately shown on the blackboard at one of our meetings illustrates this point. The prices ranged all the way from $8 to $16 on this particular piece of work.

The question arises, What per cent of profit is legitimate in the plumbing business? Now the question is not to be answered until the completion of this address, but the writer would be very glad to have one of our successful men kindly notify him on the quiet, as we have all come here to try to complete our education in this, our chosen line of work.

Last February just as our special train entered the depot at Springfield many of us will perhaps remember hearing a quartette of operatic voices singing that beautiful and touching ballad, "You Gotta Quit Kickin' My Dawg Around." It was sung in such a pathetic and plaintive manner as to impress itself indelibly upon my memory; in fact, from the many "kicks" have received during my business career, I might have been the original "hound" referred to.

Oftentimes, while sitting at the desk, I fall a-dreaming, and waking with a start, I wonder whether the day will ever come when the public will appreciate our efforts and give us the respect and consideration to which we, as business men, are justly entitled; and I trust that the incoming generation entering our craft will be able to demand better recognition of the value of their services to humanity and the world at large.

Should men who are unsuccessful continue in the trade? It is surely unfair that we be prevented from earning imate profit by unintelligent and petent competition. If Providenc place us in the vocation for which best fitted, it would be a mercy; ditions such as these I suppose wi indefinitely, until men become e the fact that "Labor is worthy of

COST ACCOUNTIN FOR PLUMBERS—TH ESTIMATE BOOK.

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitte

THIS book demands first attention, not only on account of its importance, but further may be said to be the "book of first entry."

One of the worst habits an estimator can get into is that of figuring roughly on any old piece of paper that may be handy, and either destroying it or sticking it on a file where it will not be easy to find when wanted.

Always make your estimate upo estimate blanks, so that it will act to your memory as you come to Do this whether alone or with a It will keep you in good habit have a beneficial effect upon your besides keeping your estimate fil shape as to be easy to refer to venting disputes when the work pleted.

KRIEBEL & CO.
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620 SPRING GARDEN STREET
PHILADELPHIA, PA.

Quan.	Steam Items	Price		Quan.	Water Items
	Boiler No.....rated				Boiler No. ....rated
	Direct Radaition High				Direct Radiation High
	" " "				" " "
	" " "				" " "
	" " "				" " "
	" " Wall				" " Wall
	Indirect Radiation				Indirect Radiation
	Valves				Valves
	"				"
	Union Ells				
	" "				
	Air Valves				Automatic Air Valves
	No. Exp. Tank, Alt. Gauge,				
	Thermometer				Valves on Mains
	Valves on Mains				Pipe Fittings
	Pipe Fittings				Boiler Covering
	Boiler Covering				Pipe Covering
	Pipe Covering				Bronzing Material
	Bronzing Material				Smoke Pipe
	Smoke Pipe				Valves for Double Boilers
	Valves for Double Boilers				Cold Air Ducts
	Cold Air Ducts				Warm Air Ducts
	Warm Air Ducts				Indirect Boxing
	Indirect Boxing				Registers
	Registers				Hangers for Indirect Rads.
	Hangers for Indirect Rads.				Water Supply and Blow-Off
	Overflow Pipe				Permits
	Water Supply and Blow-off				Freight and Cartage
	Permits				Carfares and Incidentals
	Freight and Cartage				Board
	Carfares and Incidentals				Labor
	Board				
	Labor				
	Total				Total
	Profit				Profit
	Amt. Bid				Amt. Bid

FIG. 2—FRONT SIDE.

ROOMS	Wide	Long	High	cu. ft.	Glass	Wall	Total	Water Direct	Rad. Ind.	Steam Direct	Rad. Ind.	No.	Col.	High	Water Tap	Steam Tap	Tot

FIG. 3—BACK OF SHEET.

Estimate No. .....

ESTIMATE SHEET

Page .....

Date .....19....

Architect .....
Location of Building .....
Location of Sewer .....
Depth of Sewer .....

Owner .....
Location of Water Main .....
Depth of Water Main .....
Nature of Soil .....

Quantity	Size	Description	Materials	Estimated Cost		Actual Cost	
			Bath Tubs, complete				
			Lavatories, complete				
			Water Closets, complete				
			Urinals, complete				
			Sitz or Foot Baths, complete				
			Shower Baths, complete				
			Kitchen Sinks, complete				
			Pantry Sinks, complete				
			Slop Sinks, complete				
			Wash Trays complete				
			Filters				
			Water Heaters				
			Drinking Fountains				
			Water Meter				
			House Tank				
			Pumps				
			Range Boiler				
			Range Boiler Fittings				
			Soil Pipe				
			Soil Pipe Fittings				
			Terra Cotta Pipe				
			Terra Cotta Fittings				
			Galv. Iron Pipe				
			Galv. Iron Fittings				
			Brass and Copper Pipe				
			Brass Fittings				
			Lead Pipe				
			Lead Goods, Sheet Lead, etc.				
			Pig Lead and Oakum				
			Cement				
			Valves, Stop Cocks & Bibbs				
			Solder, Gasoline, Oils				
			Stop & Vent Boxes, Cesspools				
			Solder, Nipples & Cleanouts				
			Wrought Pipe and Fittings				
			Drainage Fittings				
			Rubber Goods, Packing, etc.				
			Gas Pipe and Fittings				
			Permits and Inspection				
			Board, Fares, Freight, Cartage				
			Carpenter Work				
			Mason Work				
			Labor, Excavating Days				
			Labor, Plumber Days				
			Labor, Helper Days				
			Incidentals				
			Total Flat Cost				
			% Overhead Expense				
			Shop Net Cost				
			% Profit				
			Price Submitted				

FIG. 1—ESTIMATE SHEET, 8½x14 INCHES.

Estimators often find their great
ger in forgetting to insert one
items of the cost, the omission of
discovered only when the job is c
and the actual cost is computed.
lessen the danger of such omissio
plumbing contractors use a compr
estimate sheet as in Fig. 1.

The estimator must be continua
his guard against overlooking an
details which enter into an estimat
stant vigilance is the price of s
the estimator's occupation, and the
lapse of attention may bring se
sults.

Every estimator suffers more
from the thought that possible er
creep into his estimates unknowi
certainly without intent; but the
can do is to guard himself in every
way against omissions and erro
affect his work. The estimator m
forget and he must never overlool
tails of cost which enter into an
The checking up of the items of
the estimate is finished is a g
against errors of this kind, and wh
is more than one estimate in an
a good plan for one person to ch
the figures of another on work a
to several hundred dollars, for one
often make the same mistake
checking over his own work, wh
other estimator will easily see th

The successful estimator must
the jobs upon which he makes pr
after the work is secured, for
portant that every part of the
done in the manner in which it
tended it should be done if possib
the value of an itemized estim
showing all the details of an esti
mitted. In Figs 2 and 3 are sh
mate blanks for steam and hot w
tracts.

When the estimated cost has b
and the work installed the
should then put down the *actua*
the estimate blanks, which will sh
he over-estimated or under-estim
particular item. An estimate shee
kind should be used by every plu
heating contractor. Without them
possible to keep track of the w
in the past, and to use it as a

"Standard" "Laton" Lavatory

THE "LATON" is a new design "Standard" Pedestal Lavatory, which has only recently been placed on the market, but for which there is already a large demand, owing to its many noteworthy advantages. Its simple yet attractive pattern has gained for it a preference where sanitation and cleanliness are appreciated. The flat surface of both pedestal and slab is a popular advantage on account of being easily and quickly cleaned.

"Standard" **"Laton"—Plate P-3115 D.**

"Standard" Porcelain Enamel "LATON" Lavatory with slab, oval bowl with rear outlet, overflow and apron all in one piece; supported on porcelain enameled pedestal. Fitted with N. P. waste plug and rubber stopper, chain and chain stay, P-10276 "Torrance" Faucets, $\frac{3}{8}$-inch P-10427 supply pipes and $1\frac{1}{4}$-inch P-10463 "P" trap.
Furnished enameled all over only.

PRICES: Sizes	20x24-in.	22x27-in.
Plate P-3115 D, as described	$30.75	$33.75

It is enameled all over, giving it a beautiful and permanent hard, white surface, which is guaranteed against cracking, crazing and chipping off.

It bears the "Standard" green and gold label, a mark of guaranteed quality and lasting service.

The "Standard" "Laton" Lavatory is not illustrated in any of our catalogues, but illustrations with description and list prices may be had upon request.

DISPLAY ONE IN YOUR SHOWROOM.

Standard Sanitary Mfg. Co.

PITTSBURGH, PA., U. S. A.

OFFICES AND SHOWROOMS:

New York.....35-37 W. 31st Street
Boston.....John Hancock Building
Chicago..Karpen Bldg., 900 S. Michigan Ave.
St. Louis.....100-102 North Fourth Street
Philadelphia.....1215 Walnut Street
Washington, D.C.....200 Southern Building
Pittsburgh.....106 Sixth Street
Cleveland.....648-652 Huron Road, S. E.
Toledo.....311-321 Erie Street
Cincinnati.....633 Walnut Street
Louisville.....319-323 West Main Street
Nashville.....315-317 Tenth Ave., South
Houston.....Cor. Preston and Smith Streets
Fort Worth.....Front and
New Orleans..Baronne and S
San Francisco.Merchants' Nat
Toronto, Can.....59 Rich
Montreal, Can.....215
Hamilton, Can.....20-28
London, Eng....57-60

the future, whereas if these estimate sheets are used as intended to be they will prove to be an excellent guide for subsequent estimates.

In Fig. 4 is shown a sample form of "Contract Blank" to be used in submitting estimates to customers. Three copies should be made out, one original and two carbon copies. The original copy is retained in the office and filed as a matter of record, while the two carbon copies are mailed to the customer, one for him to retain and the other for the customer to sign, if he accepts the contract, and return to the contractor.

All contracts of any consequence should be in writing, as in law certain simple contracts cannot be enforced unless written evidence of the terms of the agreement and of the parties to it is produced.

ENERGETIC PLUMBING COMPANY,
44 NORTH FOURTH STREET,
Philadelphia, Pa.

Specifications and Contract

To ....
....

We herewith submit specifications and bid for .....

We guarantee all material used in this contract to be first-class. The entire job to be done in a neat, substantial manner and guaranteed as such for one year.

Any alteration or deviation from the plans herein agreed upon involving extra cost of labor and material, will be executed upon written orders for same, and will become an extra charge over the sum mentioned in this contract.

We hereby propose to furnish and erect the above complete in accordance with the above specifications for the sum of ..... Dollars ($.....).
Payment to be made as follows: ....
....
Date ....

The foregoing terms, specifications and conditions are satisfactory, and the same are hereby accepted and agreed upon, and.....hereby authorize you to execute the same.

....
....
Date .....

Contracts made with our mechanics not recognized.
This contract is void after 30 days from date, unless signed.

FIG. 4.—CONTRACT FORM, SIZE 8½" x 11"

U. S. Radiator Corporation Elects Directors.

THE annual meeting of the stockholders of the United States Radiator Corporation was held in Dunkirk, N. Y., Wednerday, Feb. 26, and the board of directors for the year ending Feb., 1914, were chosen. Seventy per cent. of the stock was represented at the meeting either personally or by proxy. The annual report of the corporation was read showing improvement in conditions in all departments. The officers are looking for results that will be pleasing and satisfactory to the stockholders.

Dunkirk is the legal headquarters of the company for meetings of the stockholders of the corporation, but all meetings of the directors are held in Detroit.

There is no change in the board of directors except the election of James H. Dempsey, of Cleveland, to take the place of S. K. Pittman, of Detroit, resigned.

The newly chosen board of directors is as follows: Henry T. Cole, Detroit; George C. Blackmore, Pittsburgh; William L. and Frederick W. Herendeen, Geneva; Jesse Brooks Nichols, Detroit; Joseph J. Blackmore, New York; Merle B. Moon, Detroit; Charles C. Jenks, Detroit; James H. Dempsey, Cleveland; Robert J. Gross, Dunkirk; George Ducharme, Detroit.

The board of directors is composed of representative business men from various parts of the country. Mr. Ducharme is a prominent Detroit capitalist, Mr. Moon is vice-president of the First National Bank of Detroit, Mr. Jenks is president of the Security Trust Co., Detroit, president of the First National Bank of Detroit, of the Jenks & Muir Mfg. Co. and identified as director of other financial and manufacturing institutions. Mr. Dempsey, a new member on the board, is a member of the prominent law firm of Squire, Sanders & Dempsey, of Cleveland, and with E. G. Herendeen perfected the consolidation of the constituent companies of the Radiator corporation; Mr. Nichols is engaged in the manufacturing business in Detroit; Messrs. Cole and Blackmore are active vice-presidents of the Radiator corporation, and W. L. and F. W. Herendeen are retired.

Maryland State Association Meet.

THE Maryland Association of Master Plumbers met March 13 and elected the following officers and directors: President, Samuel E. Houck; first vice-president, John A. Graham; second vice-president, John Kirkley; recording secretary, August V. Eidman; financial secretary, Charles H. Frederick; treasurer, Daniel N. Sullivan; sergeant-at-arms, Patrick Sherry. Directors: Frank B. Snyder, of Hampstead; T. H. Boland, August Malthan, A. J. Ahern and L. E. Mitchell, of Baltimore.

The following delegates were elected to attend the national convention to be held in Philadelphia June 17, 18 and 19: John Trainor, William H. Rothrock, Frank J. Knell, John B. Macfarlane, C. I. Potts, Samuel Houck, Charles Frederick, Jr. Graham, August V. Eidman, P. Sher August Malthan, W. H. Mitchell, T. Boland, L. E. Mitchell, John Kirkley, C. McGuire, F. P. Carey, A. W. Beam, J. Thaler, William Mylander, J. J. Pr Edward Wehrhahn, A. Schanze, J. B. H ger, all of Baltimore, and F. B. Snyder, Hampstead; J. S. Johnson, of Cumberla L. B. Morgan, of Salisbury, and W. Deneen, of Frostburg.

PITTSBURGH NOTES.

DIFFERENCES which have exis between employer and emplo at the Barberton, O., plant of Pittsburgh Valve, Foundry Construction Co. have been adjus through the good offices of the Ohio St Board of Arbitration, and this has resul in the workers receiving an advance of per cent. in their wages. The plant is r being operated to capacity, with ample ture business on the order books.

Upon the retirement of A. C. Overl as resident manager of the Scottdale plant of the United States Cast Iron, I & Foundry Co., the employes preser Mr. Overholt with a handsome loving c P. T. Laws, who has been associated v the management of the Birmingham, A plant of this company, has succeeded Overholt at Scottdale. Mr. Laws was merly identified with the management plants of this company at Anniston, A and Addiston, O.

Supply dealers here have been adv of the formation of the Ricker Plumb & Heating Co. at Canal Dover, O., wi capital stock of $10,000. Those at the h of the new company are Harrison L., J A. and Ruben C. Ricker and Clifford Schane.

Among the plumbing contracts awar in Pittsburgh and vicinity during the fortnight have been the following:

Pitcairn, Pa.—W. N. Barnhart has b awarded both heating and plumbing w in the $4,500 residence for J. B. Waite

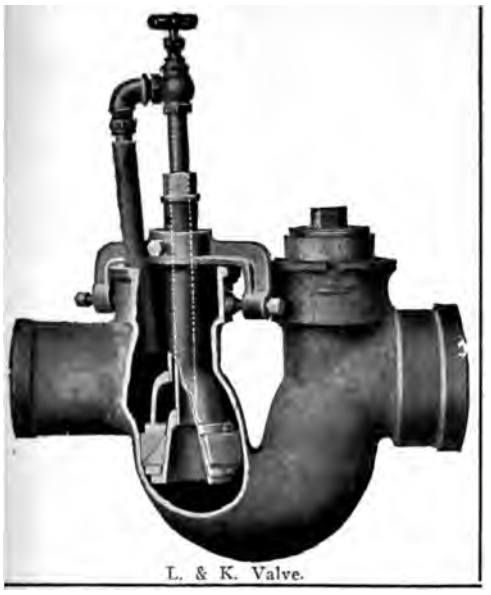
Wheeling, W. Va.—Frank Flowers cured plumbing and heating contracts new $5,000 theater being erected in Wh ing by the Edgewood Amusement Co.

The Sloan Heating & Ventilating has been awarded the heating contrac the $10,000 residence being erected for H. Fellabom, of this city.

The Iron City Plumbing Co., of North Side, was awarded the plumb work in the $3,000 addition now going for the Lincoln Hotel.

George McKay received the plumbing C. F. King the heating work in the $4 residence being built in Dormont by W Lashley.

Caldwell & Semple have been awar all plumbing work in the $75,000 sch being erected by the Central Board of E cation at Sharon, Pa.



L. & K. Valve.

L. & K.

Testing Valves and Plug

Patented September 6, 1898
No. 610,452

THE DEVICES herein illustrated have been invented and perfected by a plumber for the plumber—more particularly for the up-to-date plumber, who does a job to be a job. And as the proof of the pudding is in the eating, so the wind-up of a plumbing job should always be a thorough test of all the joints before the work is accepted.

L. & K. Test Plug.

The architect usually insists on such a test, and the plumber goes to an immense amount of labor and expense to convince him that the work is O. K.

But why should there be this expense to accomplish that?

No pressure test can be made unless all the outlets are effectively stopped, and there is where the expense "comes in" unless you chance to have in your equipment of tools a set of L. & K. TEST PLUGS AND VALVES.

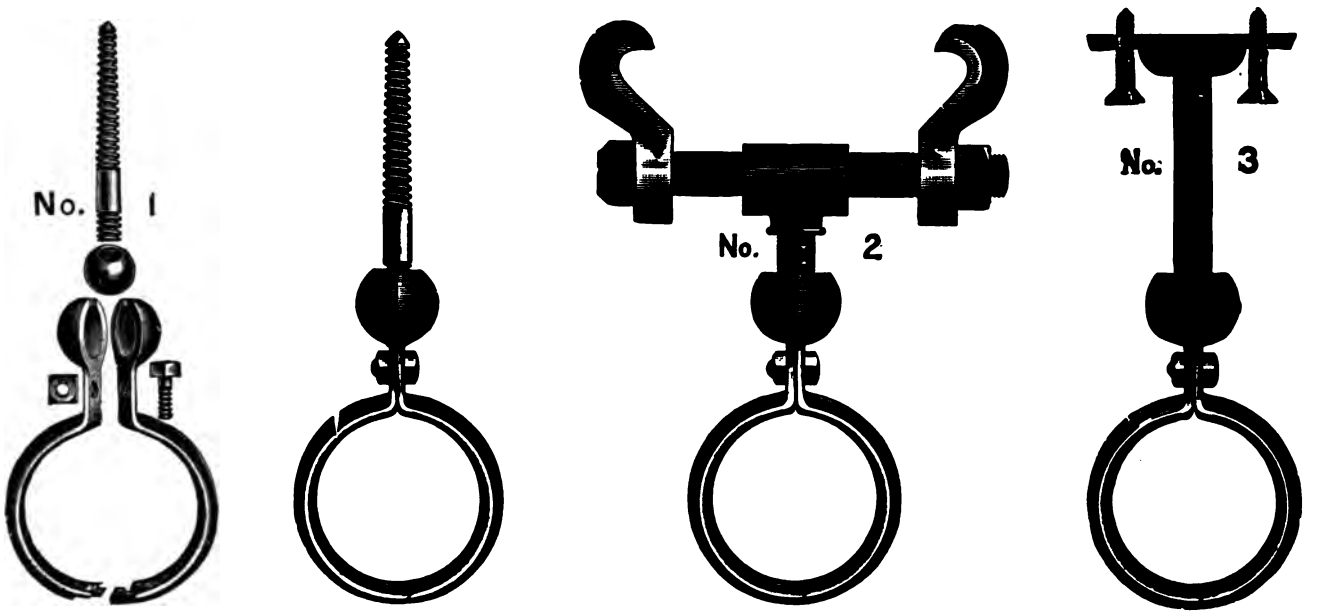
Send for Booklet giving full description.

JOHN SIMMONS COMPANY

110 Centre Street, 48 East 41st Street, NEW YORK. **Bush Terminal, BROOKLYN**

HANNA "BALL JOINT" PIPE HANGERS

HEAVIEST AND STRONGEST MADE—ALL SIZES MALLEABLE IRON



Manufactured by THE PENN ENGINEERING CO., PHILADELPHIA

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Twenty-ninth Paper

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RULE 131. All water-closets must have earthenware flushing rim bowls. They must be set entirely free and open from any enclosing woodwork.

Plate 132 is an illustration of a good water-closet coming under this rule. This is a syphon jet closet with flushing rim, and it is almost an impossibil ty to find the slightest soil after the closet has been flushed.

The lower part of sketch is a sectional view, presenting the design of water-closet —we might say, its interior channels.

The cut represents the closet when in action, the course of the water and method of thoroughly cleansing the entire interior surface from the rim to its outlet or connection with branch soil. The two dotted lines extending horizontally across bowl of closet indicate the water line of trap when closet is not in action.

This makes an almost perfect deep water seal, preventing any backward gases from passing through trap of closet.

The moment the chain of a flushing tank or cistern is pulled, or handle of low-down tank or flushometer moved, starting the flow of water to the closet, the water not only circulates around rim of closet and passes through the small perforations, striking the sides of bowl just below rim,

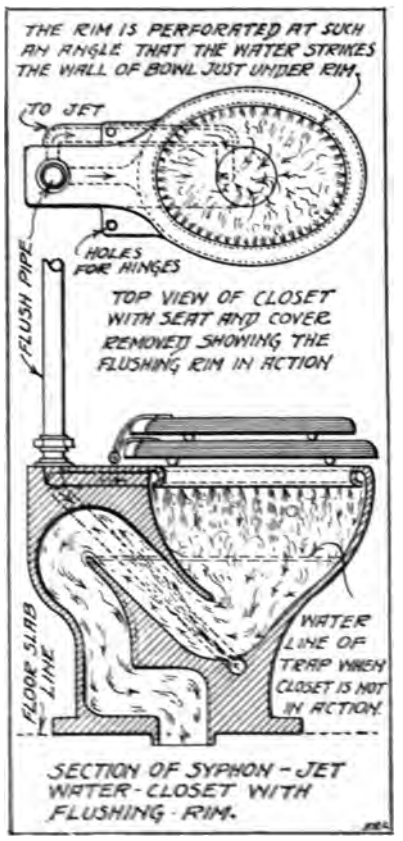

THE RIM IS PERFORATED AT SUCH AN ANGLE THAT THE WATER STRIKES THE WALL OF BOWL JUST UNDER RIM.
TO JET
HOLES FOR HINGES
FLUSH PIPE
TOP VIEW OF CLOSET WITH SEAT AND COVER REMOVED SHOWING THE FLUSHING RIM IN ACTION
FLOOR SLAB LINE
WATER LINE OF TRAP WHEN CLOSET IS NOT IN ACTION.
SECTION OF SYPHON-JET WATER-CLOSET WITH FLUSHING-RIM.

PLATE 132—ILLUSTRATING RULE 131.

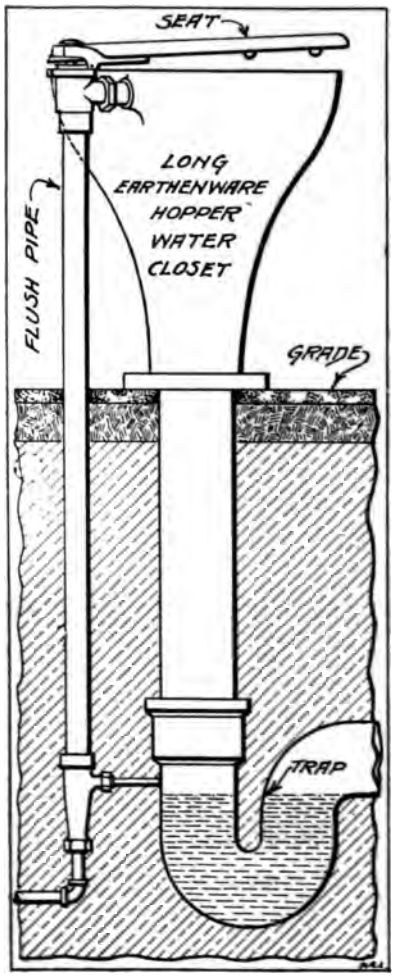


PLATE 133—ILLUSTRATING RULE 133.

but also the water passes through small channel on left-hand side of closet to jet located at bottom of trap. This jet creates a suction, and the water immediately fills the outlet side of trap, which produces a syphon, and the solid and liquid matter is rapidly discharged into the drainage system.

When the water in flushing tank is nearly all drawn off the syphon is broken, but enough water from tank flows into the bowl or trap of water-closet to make a perfect seal.

The upper part of this Plate 132 is a top view of the water-closet with the cover, seat and hinges removed.

This sketch shows the course of the water through the rim of closet and to the jet, as stated above. These small perforations in rim are arranged so that the water strikes the side of bowl all around immediately under the rim, thereby washing the entire inside surface of bowl.

The arrows entering outlet of bowl in center indicate the rapidity and uniform discharge of the contents of "bowels."

The up-to-date manufacturers specialize on this style of closet, and they have produced them to such a degree of perfection that they are almost noiseless in operation.

A different design of syphon jet water-closet than shown on Plate 132 was illustrated in the last issue of the MERCHANT PLUMBER AND FITTER, the only difference being the location of the jet.

The flushing tank or cistern or flush-valve undoubtedly has a great deal to do with the proper flushing of the water-closet and also the sounds when closet is in operation.

We must have the water pressure, in the first place, and, whether it be great or small, the closet must do its work silently and effectively.

Rule 132. Pan, plunger, offset washout and washout, or other water closets having an unventilated space, or whose walls are not thor-

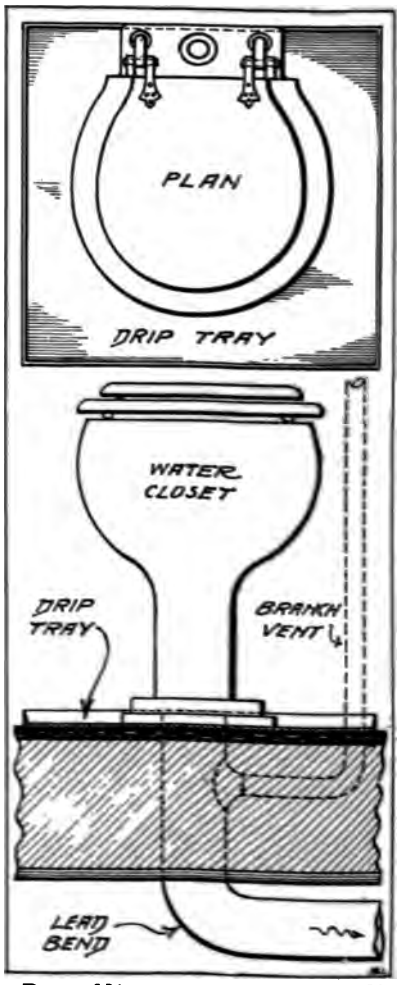
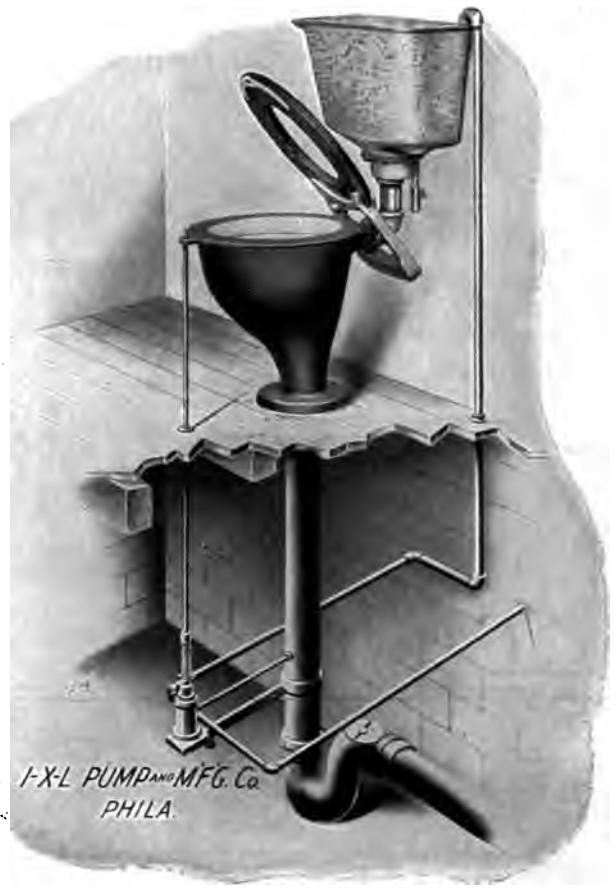


PLATE 134—ILLUSTRATING RULE 134.

Approved by the Philadelphia Board of Health

THE IMPROVED "I X L"

Anti-Freezing, Low Down Combination



(Plate 4 I X L Patent Applied for.) TRADE MARK I X L

The "I X L" Anti-Freezing Closet can be installed very quickly, it is simple, not complicated, nothing inside of tank but the stand pipe, gives no trouble, is cheaper, infringes no patents. Can as much be said for others?

THAT'S ALL

A Few of Our Specialties:

"I X L" Sewage Ejectors. Cellar Drainers. Water Lifts. Water Systems. Anti-Freezing Closets. Belt or Electric Driven Air Compressors. Beer Pumps. Factory or Mill Closets. Seat Action Closets High and Low Down. Pull Combinations High and Low Down. Automatic Syphon Tanks 1¼ to 2½ Syphon. Urinal Sprays. Compound Air and Water Regulators. High Tank Anti-Freezing Combinations. Air and Water Regulators. Hopper Valves (Spring or Weight). Pitless Hopper Valves. Compound Lever Ball Cocks. Valve Rests. Air Chambers.

We guarantee them in every respect. Send for catalogue.

"I X L" PUMP & MANUFACTURING CO.

Patentees and Makers

957-59-61 N. Ninth St., and 958-60-62 N. Darien St.

PHILADELPHIA, PA.

oughly washed out at each discharge, will not be permitted.

A quarter of a century ago it would not have been so bad to come in contact (in more ways than one) with a pan or plunger water-closet, but to find one to-day in this city—and no doubt we could—it should be cause for its immediate demolition, with all the pipes in connection with this kind of a closet drainage system.

They are indeed out of date, and the piping systems were no doubt installed at the same time or just before these obnoxious closets were connected to them.

Both should be confiscated and removed to some "barren" island.

Offset washout closets are, of course, not permitted here, and neither is a washout, though we can find thousands of the latter in nearly every kind of a building to-day; but the rule forbidding the use of the washout closet has only lately gone into effect.

Rule 133. Long hopper water closets will not be permitted, except earthenware hoppers where there is an exposure to frost.

We show on Plate 133 an illustration of a long hopper. The sketch shows the hopper of earthenware as noted, and below grade, down to trap inclusive, the material is of extra heavy cast iron, or, more plainly speaking, extra heavy cast-iron pipe.

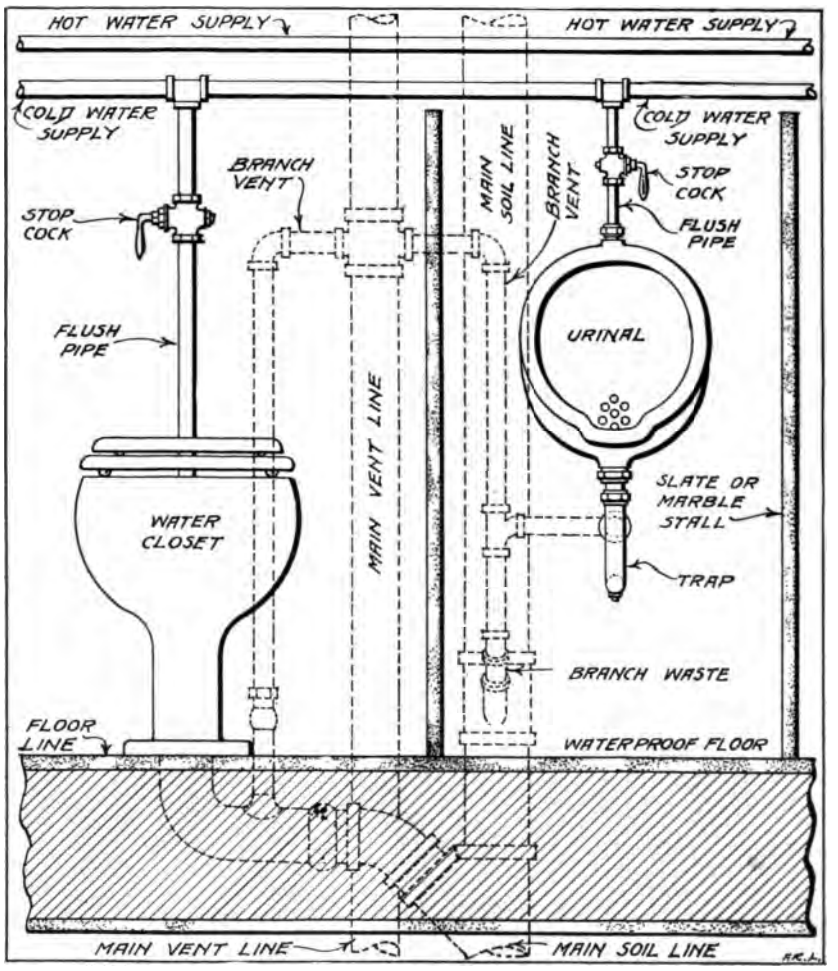


PLATE 135—ILLUSTRATING RULE 135.

The flushing of a hopper works automatically or by seat action every time it is used. The valve is placed in the ground close to the cast-iron trap and below frost line. The flush pipe, therefore, contains no water except at the time of flushing, consequently there is little chance of its contents freezing even in severe weather. Immediately after the flushing process has been accomplished the valve in ground is shut off, and the remaining water in flush pipe passes down and into trap through relief pipe, filling the trap enough to produce a water seal.

Where these long hopper water-closets could be used advantageously is in a vicinity where building operations are very extensive, and the surrounding ground or cellar floor would permit the installing of them, for the use of the workmen, even the poor laborers or excavators.

Of course, we would have to run temporary house sewers or house drains, and the cost of this installation would be only a mite compared with the health of the workmen and that of the surrounding community.

When a cellar has been excavated to its required depth and we find its grade several feet above the main sewer in street, we should, by all means, especially in Winter, install a long hopper, which could be located between footings or piers so that it would not interfere with the building operations at all—even the entire building could be completed, except, perhaps, the small space to be concreted upon which the hopper water-closet sets.

This would also "alleviate" the necessity of visiting near-by corners—a place, too, where a man could replenish his stock.

If the cellar or sub-cellar (being too low) would not permit a practical installation of a long hopper water-closet, perhaps the adjoining property owner would gladly allow the use of part of his lot, if he were acquainted with the necessity and importance of water-closets for the workmen next door. If he be close-fisted, as many owners are, pay him a rental for the use of a lot about 6x6 feet square.

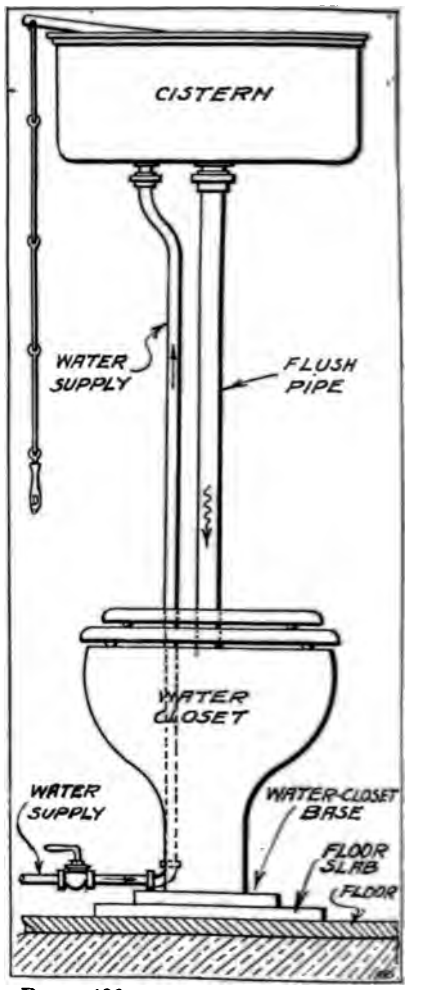


PLATE 136—ILLUSTRATING RULE 136.

Other places where these earthen ware long hopper water-closets are installed largely are in yards of buildings, whether used for living purposes or for business, and in which buildings no provision has been made for toilet facilities.

Rule 134. Drip trays on water closets will not be permitted.

Plate 134 shows the elevation and top view of a water-closet which sets upon a drip tray, indicated on the illustration.

This is more "ancient" plumbing and a germ producer.

Just imagine the condition of a water-closet drip tray which has not been cleaned for one or two days!

When they were in use, sheet lead was the correct metal, but frequently galvanized iron or tin was used on account of the cheapness.

These pans very soon became porous from chemical action and allowed the matter discharged therein to saturate the floor, generally of wood, and decomposition immediately started, the proof of which was the sickening odors permeating the atmosphere.

PECK'S SYPHON VALVES

are made of the highest grade brass, with *cast parts.* Each valve is carefully tested and is absolutely guaranteed to be free from blow-holes, sand-holes, and similar defects. These valves will operate any type of high tank closets. Note the *Direct Syphon on both valves* and *special four post guide on No. 6 Valve.*

Booklet of Syphon Valves and Ball Cocks will be sent upon request.

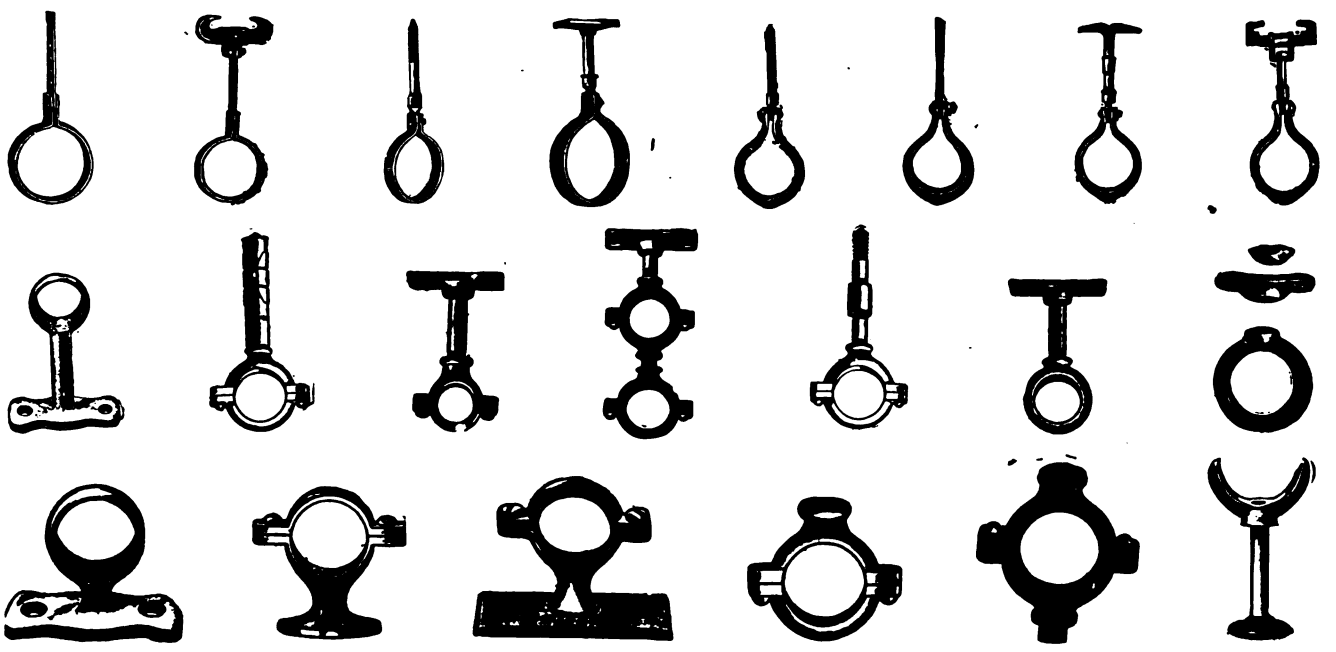
The Peck Bros. & Company

127 Chestnut Street
New Haven, Conn.

219 W. 49th Street
New York, N. Y.

For Price on These Hangers and Other Specialties

Write now to **FEE & MASON,** 81 Beekman Street NEW YORK



It is bad enough to have a drip tray under a refrigerator, and we should thank our stars that the water-closet drip tray is not connected similarly.

Rule 135. Water closets and urinals must never be connected directly with or flushed from the water supply pipes, except when flushometer valves are used.

Plate 135 is an illustration of a water-closet and urinal compartment. We frequently find in many toilets, especially in cafes, a water-closet and urinal separated by a partition of wood or slate, as indicated on diagram. Many—the majority—are in such a state of deterioration that it is with the greatest effort we can remain in them for the fraction of a minute. The closet and urinal may be connected properly to the main soil and vent lines, which, with branches, are shown in dotted lines.

But where is the flushing cistern or flush valve? No, they haven't any; and if they had, ninety times out of a hundred they would not be used; but the 10 flushes help.

Instead of a tank or flushovalve, we find the flush pipe taken directly from the cold-water supply pipe and a stop cock inserted between closet and cold-water supply. How many would take the time to open this kind of a valve? And if they did, what would be the result? They couldn't budge it at all, for it has become an integral part of the valve, either from non-usage or perhaps intentionally by the proprietor, who desires to reduce his water bill at the expense of his customers' health. "Here's to your health" should never be toasted in this class of emporium.

No, we must not flush our fixtures in this manner, and the illustration, Plate 135, was made to present the idea clearly.

Rule 136. Each water closet and urinal must be flushed from a separate cistern, the water from which is used for no other purpose, or may be flushed through flushometer valves.

Plate 137 is a typical sketch of a water-closet flushed from a cistern. We are all acquainted with this method. The closet sets on an approved floor slab, as called for and explained under Rule 130, illustrated in the last edition of the MERCHANT PLUMBER AND FITTER. For illustrative purposes we show the water supply to flushing cistern running along wall just above floor line and rising to tank or cistern immediately back of the water-closet, as shown in dotted lines. A cut-off valve is shown on the water-supply pipe on lower left-hand corner of illustration.

The flush pipe connects with the top of water-closet in the same manner as shown on Plate 136, illustrating a syphon-jet flushing rim water-closet.

Plate 137, coming under this same rule, 136, is a sketch of a "hung-from-the-wall urinal," being flushed by a cistern directly overhead similar to the closet tank shown on Plate 136, only the tank or cistern contains a smaller quantity of water than the water-closet cistern, and this is permissible, the explanation of which will be shown shortly under a special rule.

This urinal is, of course, placed in a stall, the partitions of which, and the floor also, are of non-absorbent material. Presuming that there is a pipe space back of the partition upon which is hung the urinal, we show the flush pipe dropping from the cistern or tank and passing down rear of non-absorbent partition and coming through rear wall just above urinal connection at top. The supply pipe to float valve is shown to the right of tank, at the bottom. We should all be acquainted with this form of flushing urinal, as it is the one in most general use.

As also stated in this rule (136), the water from a flushing tank or cistern cannot be used for another purpose, and the

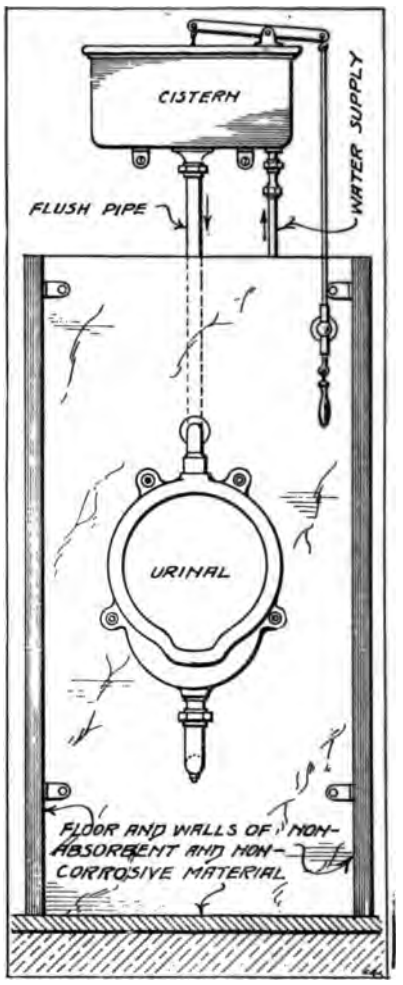


PLATE 137—ILLUSTRATING RULE 136.

manner in which it is connected and placed would make it quite inconvenient if water were desired from these cisterns for other purposes.

Improving Credit in Plumbing Business.

By L. McNAMARA.

Essay read at recent annual meeting of Missouri State Association of Master Plumbers.

IS he Master of the Business end of the Plumbing Business? He has learned the trade and mastered the practical end and has spent ten or fifteen years working as a journeyman; but the day he hangs out his shingle is the day he commences to learn the business end, and strange to say, but nevertheless true, he is the last one to realize his position. His practical egotism has blinded him.

Brown & Mulcahey, his competitors, are doing fairly well. They worked journeymen work with him some years ago and he did not consider them anything extra, and would not think of asking them for a few pointers, but how he falls for the Speculator and the Foxy General Contractor, and last but not least, our friend the Jobber. Through their combined efforts he blossoms out in a few years and becomes one of the Heavy Operators. If his competitors ask him how he arrives at such a low bid he will assume the air of superiority, and in a vague way tell them of his efficient system of doing business, heavy buying and so on, and he told more of a truth than he knew when he mentioned system.

There is a system by which the average plumber starting in business is figured, and the victims of this system are many, as competitors they are ruinous. Those who try to meet these competitors will become one of them. We read in the trade papers about overhead expenses; we hear the orators at the meetings tell us how to make money. Meet these bright lights in competition, and you will about conclude the only time they figure overhead expenses is when they are soaring in their flights of oratory.

The Master Plumbers' Association is a business organization. Our standing in the business world is based on commercial rating. In, around and about the whole proposition is the word "Credit," and it is up to the men of standing in the business to show the jobber that they do not approve of the present credit system. The remedy I would suggest is that you center your forces on that one vital point, organize and patronize the jobber credit system. One that will place every man on an equal basis and one that will elevate the standard of the master plumber as a business man is the sort of credit system that is fair to all.

New Executive Appointments by Standard Sanitary Manufacturing Co.

THE Standard Sanitary Mfg. Co., announces that E. L. Dawes has resigned his position as general manager of factories in order to devote his entire time and attention to the Standard Sanitary Mfg. Co., Ltd., of Canada, as its president. The change was made necessary by the large increase of the Canadian business, to which Mr. Dawes will now devote his entire time. He will be succeeded by M. G. McKinney, with H. M. Reed as assistant general manager. Theo. A. Mueller has been appointed manager and Lafe Stoerser as superintendent of the Ahrens & Ott works.

The company states that in making these appointments it has promoted men who have served from the bottom up. The offices of general superintendent of enameling heretofore occupied by W. G. McKinney and general superintendent of foundries formerly occupied by John C. Reed have been abolished, and the latter has been appointed consulting engineer for the company, with office in Pittsburgh, Pa.

The plumbing contract for the Hotel Annex at Moses Lake, Wash., situated at the town of Neppel, to which addition is being made to the extent of 40 new rooms, has been awarded to A. E. Knight & Co., of Opportunity. The work of installation will begin immediately.

Where Quality Rules

German Silver and Copper

Oval
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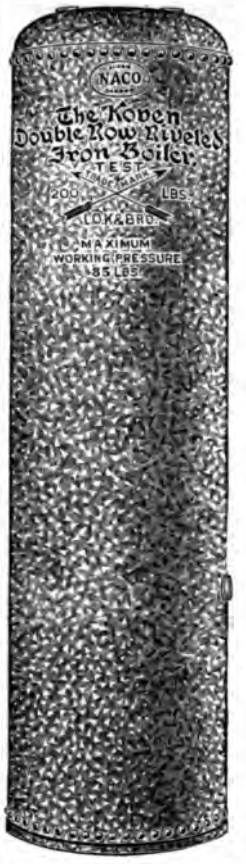

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Developments and Present Problems in Heating and Ventilation.

By JOHN R. ALLEN.

Read at the Annual Meeting of the American Society of Heating and Ventilating Engineers.

No branch of engineering science is more concerned with human health and comfort than heating and ventilation. Twenty years ago heating was only a mechanic's art, and the design of the heating plant was left to the plumber and the steamfitter. Gradually a demand arose for more elaborate systems of heating; the problem grew too complicated for the artisan, and the design of heating systems became a special branch of mechanical engineering. With the growth of our cities, and the accompanying increase in density of population, there was added to the problem of heating that of ventilation, a very vital one considered from the standpoint of human health. In the early history of heating and ventilation the engineer was primarily concerned with designing a plant which could be satisfactorily operated. To-day this difficulty has been overcome, and the field for development now lies in improving the construction of the plant, so as to attain greater economy in operation and more comfort and health for the users. At the same time in striving for these conditions the artistic treatment of the plant must not be lost sigh of. The United States has done more in the application and development of heating and ventilating science than any other country of the world, but there is still much left to do, even in the elementary development of this science.

The first need in the science of heating was exact data from which laws could be developed. The steamfitter developed certain "rules of thumb," based upon experience, excellent as far as they went, but not fundamental enough to permit of extensive application. When the engineer took up the problem his first efforts were directed to obtaining exact data, the easiest data to obtain and the most necessary being the heat losses from the various forms of radiation. These losses have now been obtained by different experimenters for all ordinary forms of radiation, both direct and indirect. It is possible with the data available to determine, within a small percentage of error, the exact amount of heat which will be given off by the various forms of radiators under different conditions, and the laws governing the loss of heat from radiation under ordinary conditions are well understood.

With the introduction of the fan system new problems were added which rendered necessary the obtaining of more data, and the development of additional laws. Various experimenters have developed laws for the heat loss from fan radiation and, while no particular law is accepted at the present time, nevertheless the results which may be expected from fan radiation can be predicted within a reasonable degree of accuracy. There is yet work to be done in this field, but we may soon expect to have laws developed which will be generally accepted by engineers. Much of these useful data has been obtained by the manufacturers, who deserve every credit for the valuable and accurate information which they are now able to give to their clients. The American manufacturer has been quick to see the advantage of giving this information to the engineering profession. These data have been of great assistance to the engineer in intelligently designing his plant so as to use properly the apparatus produced by the manufacturer. While 20 years ago very few manufacturers actually knew what their apparatus would do, the progressive manufacturing concerns of to-day maintain complete and well-equipped experimental laboratories, and are prepared to give scientifically accurate data in regard to the apparatus which they produce. In no other country in the world have manufacturers been so liberal in publishing data in regard to their apparatus, and the wisdom of this policy commends itself to every liberal-minded engineer. But what about the more fundamental propositions, in which the manufacturer [illegible] and which the scientist has [illegible] igated?

In the problem of designing a [illegible] system there are fundamental [illegible] which do not concern the manufac[illegible] and which require elaborate and [illegible] paratus in order to obtain accurate r[illegible] This is particularly true when we [illegible] or to determine the heat transmis[illegible] loss from the various forms of [illegible] construction and the effect of the [illegible] sorbed and given off by the building [illegible] ture. The most accurate informa[illegible] regard to the heat loss through [illegible] material is that obtained by Germ[illegible] perimenters, the results of which [illegible] been translated into English by a m[illegible] of our own society. These experi[illegible] however, were made with building [illegible] structions quite distinct from our own [illegible] under different climatic conditions. [illegible] not know of any extensive experi[illegible] having been made in this country to [illegible] mine the heat losses in various for[illegible] building construction used here. Such [illegible] are particularly desirable for the [illegible] forms of buildng construction, such a[illegible] low tile, hollow cement bricks, reinf[illegible] concrete and vitrified brick. Our m[illegible] office buildings present many new [illegible] lems in heat losses which have not be[illegible] vestigated, and the reason why thes[illegible] vestigations have not been made ha[illegible] been from lack of interest or of desi[illegible] the part of the experimenter to obtain [illegible] data, but from the difficulty and ex[illegible] involved in making the necessary e[illegible] ments. Such experiments, which c[illegible] completely carried out only by the Go[illegible] ment, or by a bequest from some [illegible] provided for the purpose, are of the g[illegible] est importance to the whole comm[illegible] as they concern the well-being of ea[illegible] dividual.

Another consideration which ha[illegible] been scientifically studied is the qu[illegible] of the proper temperature at whic[illegible] air in a room should be maintained [illegible] the United States it is customary t[illegible] sume that a temperature from 68 [illegible] deg. Fahr. is most suitable for roo[illegible] which persons are not actively eng[illegible] In Germany for similar rooms a tem[illegible] ture from 65 to 68 deg. Fahr would b[illegible] garded as sufficient, while in Engla[illegible] room is considered properly heated [illegible] the temperature is 55 to 60 deg. Fahr[illegible] one of the great English universities cl[illegible] are often held in rooms where the [illegible] perature does not exceed 55 deg. F[illegible]

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but, under the same conditions in the United States, the class would be at once dismissed. What is the reason for this difference of temperature required by different nationalities? Is it due to personal peculiarity, custom, or climatic conditions? Possibly the proper temperature in one locality may be different from that of another. The outside temperature may have much to do with the temperature required indoors, as it is a well-known fact that people living in countries where the temperature is extremely low usually require higher indoor temperature. Certainly these points are worthy of scientific investigation, as our only guide at the present time is custom, and what few data we have are fragmentary and not at all conclusive.

Many rules have been proposed for determining the proper amount of radiation to be placed in a room, and practically all of these rules are based on the assumption that the heat so applied to a room shall equal the heat lost from the walls and the windows. There are other conditions entering into the determination of the proper amount of radiation that should be placed in a room which are often allowed for by adding on percentages, but the percentages allowed in most cases are not based on any scientific hypothesis. For example, the intermittent heating of a room will affect the amount of heating surface to be placed in the room and the amount added will depend upon how quickly it is desired to heat the room after it has been cooled.

Where buildings are intermittently heated or are of heavy construction, far more heat is required to warm the walls of the building in a reasonable length of time than to take care of the heat transmission. Again, most of the rules used in determining the amount of radiation to heat a given sized room assume that the room must be heated at a temperature corresponding to the lowest temperature which exists outdoors for any length of time. Theoretically such a proposition is absurd, as obviously if just enough heat was supplied to provide for the heat loss from the room and the conditions all remained constant, it would require an infinite length of time to warm the room. Fortunately the heating engineer figures the radiation to heat the building at a much lower temperature than the average; and during the warm days heat is stored in the walls from the excess given off by the heating plant and absorbed from the sun. During the very cold days this heat is given up and reduces the heat loss from the building, serving to correct the errors in the engineer's calculations. In many of the great cathedrals of Europe no heating system is provided, and these buildings are never uncomfortable, owing to the heat stored in the building structure during the Summer months and returned to the air during the colder months. A good example of the use of the heat stored in a building comes from Germany.

Recently a state dinner was to be given in a castle which had no heating system. The engineers were asked to heat the building for the dinner, but it was specified that no portion of the heating system was to be visible in the room. The result was accomplished by means of stored heat. For a number of days previous to the dinner the floor of the dining room was covered with steam pipes and these pipes were kept hot by means of a temporary boiler. The day before the dinner all the pipes were removed and the stored heat in the walls maintained the room in a perfectly comfortable condition for a number of days, although the outside temperature was well below the freezing point. None of our rules for heating take these conditions into consideration. It is quite possible that it would be better in buildings of heavy construction to base the necessary amount of heat to be supplied not upon the minimum external temperature, but rather upon the average external temperature for a period of time. Most heating engineers allow a large margin of safety which covers their ignorance of the conditions entering into the problem.

There is still much need for the development of a more comprehensive method of determining the amount of radiaton necessary to heat a given building. The formulæ at present used do not include many factors which enter into the problem, and, in order to check existing rules, it will be necessary to have available the data obtained from actual installations in daily operation. The lack of information in regard to the actual operation in heating plants is very noticeable. A heating engineer may design many plants and, if there are no complaints, he assumes that the plants are working properly; but very few of us having investigated our own heating installations so as to find out whether the results obtained were in accordance with the computations originally made. Here, again, the obtaining of data and working up such a test involves much labor and expense, and such a test to be of any value must be carried on over a long period of time, while conditions and results are closely observed. In the proceedings of this society there are descriptions of heating plants which have been installed, but there are very few data in regard to the actual operation of such plants. It would be very interesting to know the heat loss per square foot of external surface for different conditions of outside temperature and wind, the heat loss from radiation for a long period of time, the effect of heat storage in the building walls during rapid changes of temperature, and many other details which might be obtained from such a test properly carried out. The compilation of such tests would be of great assistance in formulating some more logical rules for estimating heating surfaces.

Ventilation has been a natural outgrowth from the development of heating; as buildings have been made more and more impervious to the passage of air in order to prevent loss of heat, there has arisen the need of supplying fresh air. Even less is known scientifically about ventilation than is known about heating. The engineer assumes in the beginning of the computation that certain changes of air are necessary, depending upon the use for which the room is intended and the number of persons in the room. What fundamental scientific reasons are there for the changes of air ordinarily assumed? Dr. Leonard Hill, in the address before the Physiological Section of the Royal Society of Arts, describes a series of experiments which go to show that chemical purity of the air is of very little importance. In the worst ventilated rooms the percentage of CO_2 does not exceed by more than one or two per cent. the normal CO_2 of the air, yet at each breath we rebreathe much of the air just given out, and only about one-third of the air is expelled from the lungs at any one time. No man breathes pure air into his lungs, even when out of doors, and a change of one or two per cent. in the CO_2 of the air breathed would make no appreciable difference in the amount of CO_2 and other impurities in the lungs. The air of a room is usually assumed to be unfit for breathing when it has a bad odor, but an offensive odor does not necessarily make the air bad. Dr. Hill performed the following experiment:

A small experimental chamber, built of wood and fitted with a glass window for the purpose of observation, was made absolutely air tight. On one side of the chamber were placed two small electric heaters and a tin vessel of water, by which the air could be saturated with water vapor. On the other side was placed a large radiator, through which cold water could be circulated so as to cool the air. The room was also provided with electric fans, so that the air in the chamber could be thoroughly agitated. In making the experiments seven or eight students were confined in this small room for about one-half hour at a time. During the experiments CO_2 reached four per cent. above the normal, and the oxygen fell to 16 per cent.; the wet bulb thermometer rose to 85 deg., and the dry bulb to 87 deg. Under these conditions the students began to lose their spirits and their faces became flushed, but when the fans were started and the air in the room agitated their discomfiture ceased. The improvement in their feelings was doubtless due to the cooling of the skin, consequent upon the change of air in the clothing near the skin. Persons outside the box breathed the chamber air by means of a tube, and felt no discomfort; on the other hand, if the persons inside breathed air from the outside they gained very little relief, although by cooling the air in the box the discomfiture was relieved very much. The author concludes that the discomfiture experienced in crowded rooms is not due to the increase in impurities, but to the conditions in temperature, the lack of movement in the air, and the diminished heat lost from the body. These experiments show that our knowledge of the effects of ventilation is really very limited, and that, after all, the CO_2 test for the condition of air in a room may be of little actual value.

There is a great field for experimental work along these lines, but to carry out such experiments they must be done jointly by the heating and ventilating engineer and the physiologist. There are many things that we should know, such as: What constitutes pure air? What are the safe

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NEW YORK, MARCH 25, 1913.

Our National Conventions.

We all are aware that the 31st annual convention of the National Association of Master Plumbers will be held in the city of Philadelphia, Pa., on June 16-20 inclusive. The following week, in the city of Niagara Falls, the 25th annual convention of the National Association of Steam and Hot Water Fitters will be celebrated. Many members and guests from the west will attend the Philadelphia meeting. Upon their return home they can conveniently and profitably attend the master steam fitters' annual meeting. Niagara Falls is at its best in the month of June, the season is in full swing and the features of entertainment always offered by the fitters are well worth attending. Instinctively we know that the Philadelphia convention will be the best and biggest ever. The attending delegates from the west in returning via Niagara Falls will make the steam fitters' annual meeting a record-breaker in every sense. By so doing they will have the benefit of both meetings, and the knowledge gained, if wisely applied, will result profitably to them when regaining their seats of action.

Big Committees Undesirable and Unwiedly.

In making appointments upon the various important committees with which our State associations are deeply concerned, it has been the practise in some instances to select ten or a dozen men to serve thereon. Experience lately has proven the undesirability of appointing so many men. One committee which only recently reported, and its recommendations were considered favorably and commendable by a large State association meeting, in reality only consisted of the chairman. He communicated with all the members of his committee, mentioning the urgency of an early meeting so as to have matters in preparation for the impending convention, but his efforts were futile in the extreme. From two or three of the members of the committee in question he was advised by letter that they had not given the matter thought, and the others failed even to respond to his communication. To the credit of the gentleman in question, he really did not require the aid of his fellow committeemen, as his contribution was a noteworthy one in every respect. The point which we wish to score, however, is that a chairman and two or three others usually do all the work, no matter how large the body appointed. Therefore, why the need of so many?

National Trust Fund.

In Salt Lake City, Utah, last July, as we all now know, a trust fund of $100,000 for educational and other purposes of state was suggested by former National President A. C. Eynon, Canton, O. Stimulation was given this commendable and necessary idea by National President Frank J. Fee, New York, in his selection of a committee to further consider the thought and report at the annual meeting of the national association at Philadelphia in 1913. Upon this committee are such prominent business men as A. C. Eynon, chairman; David H. Roberts, Cleveland, O.; James B. Cassedy, Cambridge, Mass., and J. L. Murphy, New York. A meeting of the national trust fund committee was held in Buffalo on March 11 and 12. While the sessions were executive, we learn that work of a progressive nature was reported and that some crystallized thought will be shaped so as to interest the delegates at the next annual meeting, three months off.

Personal

E. N. COKEFAIR, New York manager for the Magee Furnace Co., Boston, Mass., was an interesting and interested attendant at the recent New York State convention so signally successful at Buffalo earlier in the month. Mr. Cokefair has a large acquaintance with the State delegates, but with the Manhattan members of the association, and Brooklyn as well, he has always been regarded as a close, personal friend. With his charming wife, he frequently attends national conventions, no matter how far distant from his home town, so that we all may expect the pleasure of greeting him in Philadelphia next June.

WALTER P. DEUTSCH, Cleveland, eastern manager for the Empire Brass Mfg. Co., recently called upon us. We have been closely acquainted with this young gentleman for upwards of 12 years. With him we have enjoyed many things, particularly at Allentown, Pa., where some famous outings have been experienced during each Summer season. Mr. Deutsch reports business as very good in spots. In his particular case the spots are very large and productive, so that he is happy commercially.

JOSEPH L. FRITZ, 910 Drexel building, Philadelphia, Pa., has been one of the promising young trade attaches for many years. While active more especially in Pennsylvania, New Jersey and territory south and west of that section, he is widely and popularly known in New York and New England. He has embarked in business as a manufacturers' agent of quality material, and the measure of success which already has met his efforts is indicative of a profitable and happy career. Our best wishes are extended at his embarkation.

WILLIAM J. BAPST, of the Trenton Potteries Co., has just returned from a grand tour through the west. For six weeks Mr. Bapst journeyed near and far in these glorious United States, and in each city and State he found something peculiarly interesting. In a short visit which we enjoyed with him the other day, too brief by far, we listened enjoyably to his recital of the splendid men and country of our western section. Mr. Bapst is now an enthusiast for the west. By the way, Bill, can you realize that the baby is almost three years old?

JOHN R. ALPINE, president of the Journeymen's Association, is in town for a few days and is located at the Victoria Hotel, Manhattan. Mr. Alpine assuredly is a globe trotter of distinction. Whether in New York or Salt Lake, one is liable to run across this charming gentleman. We enjoyed a little visit with him the other afternoon and are keen for a more lengthy one.

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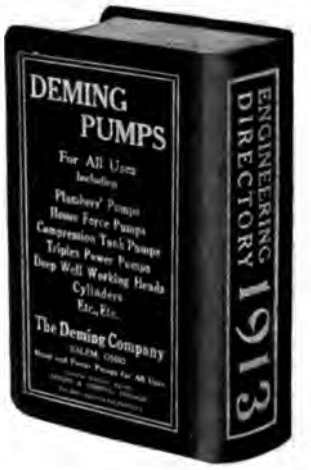

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New York State Association of Master Plumbers Celebrates Quarter Centennial

BUFFALO, N. Y., was the scene of the most successful convention in the twenty-five years' history of the New York State Master Plumbers' Association. Ever since the Troy, N. Y., convention adjourned *sine die* a year ago, the Buffalonians have been wide awake to their opportunity for the development of a stellar convention, and in all that time nothing was left undone to assure the success of the biggest annual meeting of all State associations.

The Iroquois Hotel, Buffalo's best hostelry, was secured as headquarters, and the experience of all those who attended was a happy one indeed. The management of the hotel entered into the spirit of the occasion, and boundless courtesy was everywhere apparent. The citizens of the city likewise aroused themselves and a proper civic pride led them to offer a gladsome welcome to their brethren from all corners of the Empire State.

Of the committee of fifteen naught but praise must be sung. Particularly shining as purveyors of good things in quantity, and managers par excellence stand out Chairman John J. Kavany, George H. Drake, and C. A. Smith. This trio of ardent association workers were busy from sunrise Sunday morning until sundown Saturday night. The pleasure, comfort and enjoyment of their three hundred visitors was their end and aim, and the success which met their valiant efforts must be recompense indeed for their courteous and tireless attentions to us all. Gentlemen, we salute you!

Those cities in the immediate vicinity of Buffalo by no means were the first to present their delegates. New York City, the five boroughs, in fact, together with Albany, Troy and Utica sent along their seventy odd delegates upon a special train which left the Grand Central Station in New York at 10:30 A. M., Sunday morning, March 14, and stopping en route picked up many prominent personages whose presence was highly desirable at this greatest of all conventions.

Upon the arrival at Buffalo the party was greeted by Walter H. Caines, George H. Drake, John J. Kavany, Charles A. Smith, and other gentlemen upon the reception committee, to say nothing of former president Frank L. Beyer, Charles Geiger, etc., so that a cordial welcome was immediately observed.

Tired after a lengthy railroad ride the visitors after dining retired so as to be upon the *qui vive* for whatever the balance of the week might present in the way of business or excitement; and believe us there were both aplenty.

Monday was given over to sessions of the executive committee, both of which were held in the parlors of the Iroquois Hotel. Matters which were to be presented during the following days were shaped so as to admit of convenient and economical handling so far as time was concerned.

The evening of Monday was spent at the Garden Theatre, where two hundred and seventy-five guests of the Buffalo Association were entertained by comedian Arlington and his company. An enjoyable three hours was spent by all. Adjournment was then had to the hotel, and after exchange of compliments the attending hordes withdrew to store up repose against the activities of the following day.

Early Tuesday morning the crowds in the headquarters corridors were upon th so as to participate in the parade Builders' Exchange, where the form vention, the twenty-fifth in regular sion, of the New York Master Plu Association was to be formally ope State President Frank B. Lasette. abreast the delegates headed by the of the association left the hotel wit unfurled carried by standard bearers Brady and Philip Eich of the Mas association in the vanguard. Throu principal streets to the Builders' Ex the parade, which stretched over thr blocks, caused the citizens to stan

Delegates to Quarter Centennial Convention of the New York State Maste Newly-Elected President,

he was cheered to the echo as he regained his seat.

Parade of Our Past Presidents.

National Director I. J. Brown, who is also president of the Greater New York Association of Master Plumbers, was introduced and warmly welcomed. In presenting this sterling organization worker, President Lasette paid particular attention to his achievements in the past. Mr. Brown said he was a master plumber and an organization man, and deserved no special recommendation for what little he had done. "If," said he, "I had my life to live over again, I would be again a plumber and a member of this organization." He stated that through lack of proper instructions that he had wandered to Elmswood Hall several miles distant, and for a time was lost in the shuffle. But that he enjoyed walking, and so long as he arrived at the proper place in time to join the festivities he felt that he was alright. He paid his respects to the personnel of the existing board of officers, and stated that the president and his associates could not be surpassed.

Former National President Charles Huck was riotously received. He was outside the ranks now, said he, having retired from active participation in the business some two years since. In all that time he had quite forgotten he facetiously remarked, what he had learned of the business, but if he had retired for fifty years he would never forget the great benefits derived through the organization, of which he would always cherish the kindest sentiments.

Bart F. Donohoe, former State president, was appropriately introduced by State President Lasette. Mr. Donohoe stated that he had served as vice-president for two terms under Charles Huck, a charter member of the Pretzel Club, and when Mr. Huck surrendered the reigns of government he assumed the chair. He was elected in Buffalo some thirteen years ago. The organization was the essence of helpfulness and co-operation, and the fellowship which existed was one of its most charming features.

Frank L. Beyer, a former national president, received the sanction of the chair. Mr. Beyer's peculiar graces were effectively pointed out by Mr. Lasette, who referred to the accomplishments of the association under Mr. Beyer's direction. Mr. Beyer referred to the handsome treatment which had always been accorded at other State conventions, and trusted that the local committee would in a measure by its entertainment show an appreciation of the many good times enjoyed heretofore. He referred to the presence of National President Fee as a special honor, and when departing he hoped that it would be the sense of all that they had enjoyed a real good time; and would soon wish to return to the Falls City.

Frederick F. Fladd, a former chief executive, stated that it seemed to have become the custom to get the old timers before the delegates. He appreciated the honor conferred upon him when elected to the highest office in the gift of the ciation.

John E. Dugan, also a former pre and an active and enthusiastic ass worker, said that the happiest hours life were spent in the organization. good to be in the assemblage whethe the platform, or the floor. He ho live long enough to see every on present occupying a chair upon the So long as this would require some hundred years, we heartily trust th estimable friend will accomplish hi pose and furnish an example in lo for us all to emulate.

Charles Geiger, of Buffalo, a forme president, was warmly received. He that this was the third time in t years that the convention had met same room. He hoped that when B had the honor of again receiving th vention that this room would not be enough to hold the delegates.

John Moran, a former State pre and one of the best beloved men entire national association, was chee greeted by the assemblage. Mr. stated that he was present at the B meeting held two decades ago, in fac he had attended all State conve which he would continue to do so l he lived and could get wherever the ings were held. He urged the young ment to get into harness early, and for the benefits and advantages to rived from association work were in able as they were profitable.

B. Joseph O'Donnell, all the way South Bend, Ind., a former State pr and one of the best workers in the zation, who has attended each and one of the twenty-five State conve was gladly given a hand by all those ent. He urged us all to jealously gua business, as the encroachments there outsiders were alarming indeed.

When the roster of former State dent had been exhausted Chairman J Kavany, of the entertainment comm mentioned the various features of tainment arranged for the pleasure guests, and which were really excell their variety.

NATIONAL PRESIDENT FRANK J. FEE, NATIONAL DIRECTOR I. J. BROWN AND EX-STATE PRESIDENT F. B. LASETTE.

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MATERIAL

Expense.....
Plumber.....Time.....Day.....Hours.....
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500 for $2.00
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50 Orders to a Book
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Send for samples and prices of Plumbers' Stationery.

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Presentation of Gavel to President Lasette

National Director I. J. Brown then secured the floor and in an eloquent address upon behalf of the Greater New York Association an ebony and ivory gavel to State President Frank B. Lasette. The gavel was a work of art, and upon the face of

PHILIP EICH, FRANK B. LASETTE, PRESIDENT-ELECT WALTER H. CAINES, AND PHILIP BRADY AT THE HEAD OF PARADE.

the gold plate, which surrounded it, was inscribed the following: "Presented to Frank B. Lasette, president of the New York Association of Master Plumbers, at its twenty-fifth annual convention held in Buffalo, N. Y., March 11 and 12, 1913."

President Lasette responded appropriately and stated that he would use the emblem of authority with justice and equality. Mr. Lasette stated that rather than wait longer for the arrival of his honor, the mayor of the city, he would commence the proceedings of the convention, and when the mayor or his representative arrived he would interrupt whatever business was before the house to permit of the official address of welcome upon the part of the city's official delegated to perform the office.

Thereupon he appointed Louis Yauchzi, Rochester; George H. Creasy, New York, and Thomas F. Nolan, Albany, upon the credential committee. Immediately Reading Clerk Harry Bareham was requested to read the credentials, and when enough names had been announced to form a constitutional quorum the further reading of the delegates was temporarily dispensed with.

President Lasette appointed Thomas J. Kavany and George H. Drake as a press committee from whom information could be obtained by the daily papers.

J. W. Sands requested the members of the apprenticeship committee to meet him at headquarters immediately after the adjournment of the first session.

The report of the transportation committee was called for by the president and delivered by Chairman John Renehan, who stated that he had some hundred and twenty-five certificates in hand, which assured the delegates of the customary rebate.

As the hour was past mid-day and the pangs of hunger were upon us George Tracy, Brooklyn, offered a motion to adjourn until 2.30 P. M., which when seconded by E. F. Dunkerton, of Syracuse, was adopted. Harry Voletsky was a second late in seconding the motion, but we promised to present his name in any event.

Tuesday Afternoon Session.

When time had been called at 3 P. M., President Lasette announced the committee upon resolutions. These gentlemen served thereon: B. F. Donohoe, New York; Thomas F. Nolan, Albany; George Cropper, Binghamton; George Witte, Utica; and T. M. Hennessey, Oswego.

An interesting apprenticeship report was produced by Chairman John W. Sands, Brooklyn. The importance of the apprenticeship question was one, said he, which should not be thrown into the discard, as was the disposition for some time past. Boys of good family training, with grammar school, and high school education, should be persuaded to enter the shops and develop into journeymen plumbers. The professions are fast becoming glutted, so rapidly are the young men entering same. Some means should be developed so that our trade should attract its quota of the boys of good education. The question was an urgent one, and no time should be lost by the various locals in looking to a correction of the present practice respecting the apprentices.

Mr. Sands' able and timely report upon this important apprenticeship matter was ordered received and spread in full upon the minutes.

President Lasette then announced the auditing committee. Chairman John J. Hannegan, New York; Joseph Gleason, Rochester, and Frank L. Beyer, Buffalo.

Harry Bareham, reading clerk, presented upon behalf of the Troy delegation, a resolution, providing that where a master plumber retired from the business he should surrender his license to the local health board; and if he should re-consider his determination and wish again to enter the business, a charge of $25 be made for each and every time he re-engaged in the business. The adoption of this resolution was not recommended by the resolution committee, and its action was concurred in by the convention.

The adoption of the resolution of the New York City Association looking to the discontinuance of the *New York State Plumber,* an organization periodical, and dispensing with the services of an executive clerk, or organizer, was recommended by the resolution committee; and its action was concurred in by the delegates.

The following resolutions from the Albany local were recommended for adoption by the resolution committee, and their findings were concurred in by the convention:

RESOLVED, That the New York State Association of Master Plumbers go on record as being in favor of all pending or proposed legislation which aims to improve the sanitary condition of factories, public buildings, tenement houses, public parks and amusement resorts, and that the local associations be urged to take an interest in this work and bring their influence to bear upon the legislators of their respective districts, that the success of such laudable legislation may be assured.

RESOLVED, That the practicability and advisability of organizing a master plumbers' mutual

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THE GALARD C(- --

liability insurance company, with a view to supplying the members of the New York State Association of Master Plumbers with such insurance protection at cost, be investigated by the incoming Executive Board, and its findings be communicated to the local associations at as early a date as possible for their consideration and action.

PRESIDENT LASETTE'S REPORT.

President Lasette then produced and read his annual report, which upon motion of I. J. Brown, and duly seconded, was ordered received and spread in full upon the minutes of this convention. We present same herewith:

Gentlemen—By the will of the Supreme Being, we are again assembled to take under advisement problems which have engaged our attention for the past year, and to devise ways and means through legislation and co-operation to carry on the destiny of the New York State Association.

I will touch briefly on the business transacted through the executive office, and if there are some matters that do not meet with your approval I hope you will overlook them.

The various matters, under separate headings, are as follows:

In Memoriam.—The hand of Fate, since our last convention, has been busy in our ranks, from the report received at the executive office.

On June 5, 1912, William Tobin, Past State President and member of the Syracuse Local, died in that city, and by resolution of the Executive Board, a letter of condolence was mailed to the bereaved family.

On Dec. 26, 1912, T. A. Hill, Past National President, State Secretary and member of the Manhattan Branch, had departed from this life. The State Association of Master Plumbers was well represented during the services. A resolution was adopted sending a letter of condolence to the bereaved family, which letter had the unanimous endorsement of the entire New York State Association.

Executive Committee.—There were three meetings of the Executive Committee held during the past year. The first meeting was held in the city of Troy on March 14, 1912, the day following the adjournment of our last convention. The second meeting of the committee was held in the city of Buffalo on Jan. 9, 1913, and the third meeting took place in the city of Buffalo on March 10, 1913.

The meetings were graced by the presence of all the members of the committee and the executive officers, and all matters of importance brough before the said committee were properly disposed of.

Standing Committees.—I endeavored to select men of high standing in the trade in the communities in which the members of the respective committees resided.

Legislation.—In all matters pertaining to the affairs of our association I have endeavored to interest the respective members, and have them confer with the chairman of the Legislative Committee, Timothy E. Kerwin, of the city of Albany, in order that they would receive information in respect to all bills, and the action taken on bills, endorsements, rejections, etc., from the different locals throughout the State of New York. Your legislative matters have received the entire and undivided support of the Legislative Committee, and your executive officers have instructed the Legislative Committee with reference to the proper course to pursue thereon.

THE FAMOUS ALBANY OCTETTE POSED IN FRONT OF THE M'KINLEY MONUMENT.

Visitations and Meetings.—On May 15, 1912, the Borough of Richmond, Staten Island, was visited and the local there was reorganized.

On May 16, 1912, the President and Secretary visited the city of Yonkers, where they attended and addressed an open meeting.

In June, 1912, the President and Secretary visited New Rochelle, Richmond and White Plains.

On Sept. 3, 1912, the President and Secretary reorganized the Kingston local on a visit to that city.

On Oct. 9, 1912, the President and Secretary made a tour through the State, and addressed meetings at Buffalo; addressed the executive officers at Syracuse, and the executive officers at Rochester. Open meetings were held at Watertown and Oswego, and meeting of the executive officers at Albany; there was also an open meeting at Oswego and an open meeting at the city of Utica. They returned to New York city on Oct. 22, 1912.

On Nov. 21, 1912, the President and Secretary visited the city of Elmira, and addressed an open meeting there on Nov. 23; also visited Binghamton and addressed an open meeting there on Dec. 18. A second visit was made to the city of Utica and an open meeting addressed there; there was also an open meeting held at Albany in the month of February.

QUARTETTE OF TROJAN MEMBERS WHO WERE ACTIVE CONVENTION PARTICIPANTS.

A new local was formed at Ossining during the past year.

Correspondence and Communications.—Finally, I believe the time is opportune for me to express my heartfelt thanks to the officers and members of the Executive Committee, and the members of the standing committees of the association, for the advice and co-operation I have received from them at all times when called upon during the past year, and also to thank the members of the New York State Association of Master Plumbers for courtesies extended and the co-operation I have received from them.

At times during the past year it has been necessary to assign members to special duties, and in each and every case they accepted the duties involved therein with good grace, and it is such expressions as these that give your presiding officer an incentive to forge ahead in connection with the duties connected with his office.

The report of Vice-President Walter H. Caines was read. It told of his activities and the meetings of the board which he attended during his term of office, as well as the duties entrusted to his care, all of which he referred to. Upon motion duly made and seconded the vice-president's report was ordered received and spread upon the minutes.

Secretary John J. Hannegan read his report. A most progressive and prosperous state of affairs was evidenced therein. The membership was increased in the gross by eighty, and upon deducting withdrawals and losses for various causes, showed a net increase of forty-eight, bringing the total membership up to 1,227, the greatest in the history of the Empire State or any other State association. The financial statement was even more interesting. With all bills paid up to and including this convention, and the per capita to the national associaton paid to July first, there was a cash balance of $1,763.19; and other outstanding receivables amounting to $2,517.50, making a grand total of $4,280.69. This, upon motion of Frank L. Beyer, was ordered received and referred to the auditing com-

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mittee. The statements of Secretary Hannegan were applauded, and when the figures were read off, great satisfaction was shown at the economical handling of the State office by President Lasette and his efficient and able secretary.

Edward Macdonald, Brooklyn, requested that as soon as convenient, copies of Mr. Hannegan's report be printed and distributed to the delegates. If it were possible this was ordered by the chair; and steps were taken to rush the report through the auditing committee so that, if possible, it might be put in the hands of the printer and distributed to the delegates before they retired from the convention.

Sanitary Committee's Report.

An instructive and interesting report was rendered by Chairman Andrew H. Brown of the sanitary committee. At its conclusion it was heartily applauded. We present the conclusions of this committee (Mr. Brown) in full:

RECOMMENDATIONS BY SANITARY COMMITTEE.

We cannot urge too strongly the necessity of active and aggressive work, not only by our sanitary committee, but by all of our members so that we, as an association, may enjoy the well-earned reputation of being interested in the health and comfort of the people which we are justly entitled to receive, and to accomplish this we must take the initiative (and not permit sanitary engineers and women's civic leagues and other civic societies organized to suggest remedial measures to improve sanitary conditions), when by proper effort we may convince the public that we are not only interested in the installation of sanitary plumbing, but also demand that its care and maintenance ought to be entrusted to those properly qualified, and that we are consistent in our advocacy of proper laws, regulations and supervision, and proper care after installation, thus conserving the health and comfort of our citizens.

We should also demand by persistent effort that to insure the public against disease caused by improper care of sanitary appliances, that qualified men only should be appointed as members of any board of health in any section or locality to compel owners and corporations to properly care for, and regularly inspect the sanitary accommodations in public buildings, railroad stations and other places frequented by the public, and also tenements.

If we make greater effort in this direction our association will be stronger and we will receive the approval of the public for advocating a higher standard of efficiency in the men appointed to supervise and enforce all santary requirements.

It is a well-known fact that most if not all boards of health are composed of men selected by political preferment, and qualification is not considered except that it is the rule to appoint one physician, which is the only redeeming feature, for he is qualified by his vocation or profession to assist in matters pertaining to his profession, but the other members of the board are as a rule merchants, clerks and others no less unqualified, and the master plumber, who is rightfully entitled to receive appointment by experience, knowledge and profession, is entirely overlooked, which fact is largely responsible for the unsanitary conditions which prevail in every city, village and hamlet.

If proper action were taken by every association in the respective communities, a vast improvement would be observed immediately, and we hope that greater activity and more aggressive effort will be inspired by this report.

Upon motion of B. F. Donohoe, New York, it was ordered received and spread upon the minutes; and an amendment offered by I. J. Brown, Manhattan, provided that its recommendations be considered by the incoming executive committee.

TROY RESOLUTION AROUSES INTERESTING DISCUSSION.

At this juncture the resolution committee reported upon several resolutions heretofore referred to. Respecting the Troy resolution about surrendering the certificate of competency, or license, upon the retirement of a master plumber from active work in the field, there arose considerable discus-

J. L. DONOHUE AND D. L. HAMILL AT NIAGARA FALLS.

sion of an interesting nature. J. L. Murphy stated that the certificate of competency was of life tenure, and he did not think that once this valuable diploma to a man's skill had been secured that it should be surrendered. The abuses to which the Troy resolution referred, and which it wished corrected, while serious, were not so prevalent as might be imagined. As a matter of fact the amount of business transacted upon licenses which were turned over to those unqualified to engage in plumbing was insignificant. The injury resulting from the surrender of one's license, he thought, was far greater than the damage which accrues from the operation by others upon surrendered licenses. T. E. O'Brien agreed with Mr. Murphy. The injury begins, quoth he, when the master plumber allows some one else to use his certificate of competency; and the user is amenable to law. The law, said he, provides for conditions which the Troy resolutions sought to correct. P. H. Gleason, Brooklyn; T. E. Kerwin, Albany; Thos. F. Walsh, Utica; Bart. F. Donohoe, New York, and Charles Huck, Buffalo, also expressed their opinions in regard to the Troy resolution, which as hitherto remarked did not secure the approval of the resolution committee, whose findings concurred in by the convention.

When the resolution to dispense wi State organizer, and to discontinue t riodical publication known as the New State Plumber was announced, Na President Fee regretted that the Sta gan had been done away with. He it would be only a temporary suspe however. In connection with this r B. F. Donohoe, chairman of the com on resolutions, explained the action committee, and personally stated that er or later he expected to see a na association paper.

Louis Yauchzi, chairman of the cred committee, then finished the reading credentials, which were interrupted i morning session when a constitutional rum had been effected.

Thomas F. Nolan, Albany, read a ping from the *Buffalo Evening Tim* which a ridiculous reference was ma the proceedings of the convention. chair stated that only such informati would be given out to the newspapers t press committee, of which Mr. Kavan chairman, could be accepted as auth tive, and that if the *Buffalo E Times* wished to lower its standard b ducing irresponsible and inexact inf tion, he did not see how they cou stopped.

Mr. Witte, Utica, arose to mentio splendid and effective work which dent Lasette, Secretary Hannegan other members of the board had a plished in connection with the improv of the Utica association. Mr. Witte ed that he was grateful beyond me and that his confreres joined him in ing at this time to express a hearty a ciation for the excellent results obtain the officers and board. In expressing appreciative thanks for the favors ex ed in which the membership list wa creased from 23 to 32, the name of F. Knaupp, of Troy, was also men as one who had rendered yeoman s in securing the favorable results mentioned. Mr. Witte extended a vo thanks from the Utica association t officers and members of the board was greatly enjoyed by all.

Buffalo's Official Welcome.

The proceedings of the convention gotten well under way before the m secretary, Mr. Sayles, an engaging forceful orator, arrived to extend the official welcome. Mr. Sayles warm his work, and complimented the del upon their listening qualities. His ad was one of considerable length, an paid a tribute to the sterling qu which were exemplified in the men by their early struggles, despite a la educational advantages, had made presence so largely felt in the Con wealth. Mr. Sayles stated that th was ours, and in looking into the i gent faces of his audience he knew t advantage would be taken of the liber fered.

In responding to this official we President Lasette expressed his than on behalf of the delegates for the c sies offered, and pledged that the a of the delegates would be only su

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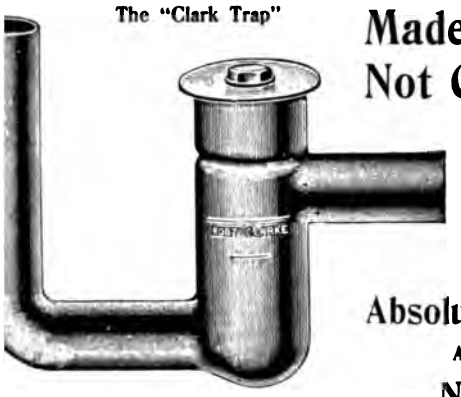

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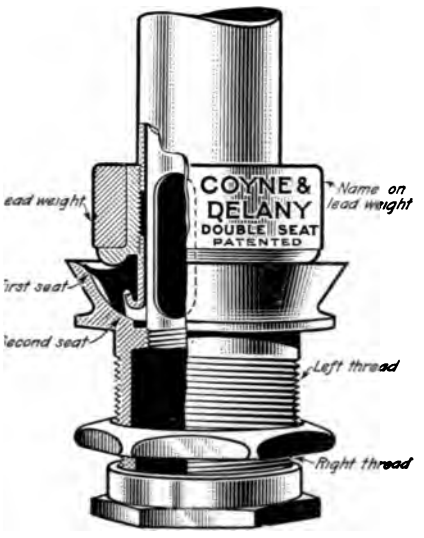

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would redound to their credit and the benefit of the city of Buffalo.

An adjournment was taken at 5.30 P. M. to permit the delegates to dine and get in readiness for the theater party which was the evening's feature.

Wednesday Morning Session.

PRESIDENT Lasette, observing a quorum at 10.30 A. M. Wednesday morning, called the meeting to order; and the delegates listened to the treasurer's report, which coincided in every respect with that of Secretary Hannegan. Upon motion duly made and seconded it was forwarded to the auditing committee along with that of the secretary. When finishing their audit, this committee approved the reports of both officers, and they were ordered received and spread in full upon the minutes.

At 11 o'clock the delegates arose and went into executive session. A wealth of details of importance to the association—in fact the trade in general—was discussed at length; and, upon adjourning at 1 P. M., the delegates were requested to appear promptly at 2.30 P. M., so that if possible the closed session might be terminated in time to permit of the election of officers and all other matters needing attention, in order that the banquet which was scheduled for 7 P. M. might not be delayed.

Final Session.

J. L. Murphy paid a glowing tribute to the tireless and successful efforts of Chairman T. E. Kerwin, of the legislative committee.

Special consideration was given during the Wednesday afternoon session to the report of the legislative committee, which was rendered by its chairman, T. E. Kerwin, of Albany. Mr. Kerwin's activitives and watchfulness in the interests of the organization awakened a hearty appreciation of his valuable services, and special mention of his meritorious labors were voiced by Thomas E. O'Brien, Brooklyn, and National President Frank J. Fee, New York. The latter gentleman was heard to remark that no mother could nurture and tend her child any better than did the Hon. T. E. Kerwin care for the legislative ends of the master plumbers' organization.

Hon. Matthew J. Kennedy, vice-president of the Brooklyn local, and assistant building superintendent of the Borough of Kings, which position he has held with honor and distinction for the past three and one-half years, spoke at length upon the urgency of the bill fathered by Superintendent of Buildings P. J. Carlin, and which has been introduced in the legislature. The necessity of licensing builders is apparent when we consider that men without any previous training in the construction and erection of buildings of all classes are now engaged in a business, the importance of which is second to none in any community. Mr. Kennedy pointed out, at great length, the necessities for such a law, and the abuses which its passage would correct. His interesting and scrupulous recital of the various ramifications of the building industry now suffering through the activities of unskilled and unqualified contractors earned the closest attention of the delegates. The bill in question is presented herewith.

The several boards of master builders' examiners shall have power and it shall be their duty:

To meet at least once in each month in their respective cities; they shall also meet whenever the Mayor thereof shall, in writing, request them so to do;

To exercise jurisdiction over and to examine all persons, except qualified architects or architectural engineers, desiring or intending to engage in the trade, business or calling of master builders or employing builders in the city in which such board shall be appointed, with power to examine persons applying for certificates of competency as such employing or master builders, to determine their fitness and qualifications for conducting the business of building construction, or to act as master builders of building construction, or to act as master builders and to issue certificates of competency to such of them as shall have passed a satisfactory examination, and shall be determined by the board to be qualified for conducting business as employing or master builders;

To charge and collect from each person applying for examination by the board the sum of $5, and all moneys so collected shall be paid over monthly to the chamberlain or other fiscal officer of the city in which said board shall have been appointed.

At 6 o'clock an open session was in order. Information respecting conferences between the master plumbers and journeymen was requested by Thomas F. Nolan, Albany, and given by Secretary John J. Hannegan satisfactorily. Frank F. Schimpf, Albany, desired information from other parts of the State, George L. Brucker, Utica, responding.

J. L. Murphy, New York, arose at this time and specifically mentioned cases where the present arrangement existent between the master plumbers and journeymen had proven of value to the Manhattan master plumbers. He spoke of a concern which in this city to-day has upward of $50,000,000 worth of work, the plumbing of which would average 12 per cent., and upon which the amicable relations between the masters and journeymen held the work in check to the satisfaction of the Master Plumbers' Association of Manhattan. Mr. Murphy's clear declaration of the situation, wherein, said he, the best interests of both the masters and journeymen are subserved, awakened a hearty outburst of applause.

Former National Director David H. Roberts, Cleveland, O., was introduced and expressed his appreciation of the hospitality so cheerfully extended since his arrival in the city. Mr. Roberts is a member of the trust fund committee appointed in Salt Lake City last July. He stated that he was heartily in favor of the principles in connection with the trust fund as laid down by former National President A. C. Eynon, and sincerely hoped the fund would be established if only for educational purposes. Mr. Roberts delivered his well-known sentiments upon loyalty, and closed an interesting 10 minutes' address to be met with considerable applause.

RESOLUTIONS TO FAMILY OF THE LAMENTED T. A. HILL.

The secretary, upon motion duly made and seconded, was instructed to prepare and forward to the widow and family of our lamented former national president, T. A. Hill, a set of resolutions setting forth the heartfelt sympathy and condolence of the New York State Association at the untimely death of the deceased, whose memory will be cherished for all time for his many estimable and ennobled qualities.

FIVE PROMINENT BUFFALONIANS IN A MOMENT OF REPOSE.

James B. Cassedy, president of the Massachusetts association, and a member of the trust fund committee, was introduced and warmly welcomed. He spoke of the magnificent type of men who, during the 30 years' existence of the National Association, had graced the presidency. He mentioned the remarkable fellowship and freemasonry of the master plumbers, and spoke of a pleasant experience in which this was put to the test in the south. He mentioned loyalty, and laid stress upon what the loyal spirit of the membership had achieved during the existence of the organization. From a mere handful we have expanded, said he, until we are to-day stronger and more powerful than ever, an army of 10,000 loyal members. He trusted that each man would appoint himself a committee of one to secure an eligible master plumber as a member during the year, and should this plan be followed out—why it should not be, he did not know—ours indeed would be a wonderful association.

A rising vote of thanks was proposed by Bartholomew Francis Donohue for the presence of former National President A. C. Eynon, Canton, O.; James B. Cassedy,

>ridge, Mass., and David H. Roberts, eland, O.

7.15 P. M. a recess of 10 minutes was ed, so that the delegates could put selves in readiness for the election of rs, which was soon to follow. Frank eyer, Buffalo, was anxious to hurry s through to culmination, as he had received word from the Iroquois that anquet would be ready upon scheduled

esident Lasette appointed as judge ew H. Brown, New York, with Frank eyer, Buffalo, and Thomas F. Nolan, ny, as tellers.

mediately I. J. Brown, in a sp'endid ate of the well-known powers and tiveness of the present incumbent, k B. Lasette, again nominated him for residency of the New York State As- tion of Master Plumbers. This nomi- n was seconded by M. F. Gleason, of klyn, and other gentlemen from va- corners of the chamber. Unavail- , however, for in a very brief but sym- tic address President Lasette request- at his name be withdrawn, which was

arles B. Huck, Buffalo, nominated er H. Caines, Buffalo, for the highest in the gift of the association. Mr. t tellingly referred to Mr. Caines' n executive ability and other success- qualities. Fred. F. Fladd, Rochester, ded the nomination of Mr. Caines. Brown, New York, also seconded the nation. Upon motion the nomination closed, and Edward Macdonald, klyn, requested that the secretary be ucted to deposit one ballot with the s for Mr. Caines as the unanimous e of this convention for the presidency e organization during the ensuing year. les Huck and Charles Geiger, both er State presidents, were appointed by Lasette to escort the new president to ostrum. In a trite speech Mr. Caines ted the office and hoped that one year e it might not be said that the del- had made a mistake in their choice.

L. Murphy, New York, nominated ge H. Creasy, Manhattan, for the presidency. This nomination was sec- d. Mr. Murphy mentioned the sterling ties and ability of the gentleman in ion, and knew that if Mr. Creasy was ed the delegates would have a fine ssor to the administration which was ccessfully being brought to a close.

Witte, Utica, placed in nomination the of George L. Brucker, Utica, for econd highest office. Mr. Witte spoke hat Mr. Brucker had done for the local tica, as well as for organization work at section of the State, and asked the of the delegates for their champion.

E. Kerwin, Albany, N. Y., placed in nation John R. Sheehan, Schenectady. Sheehan hardly needs any recommen- n from me," said his sponsor. "He een upon the executive committee for al years. His clean-cut and able meth- nd his loyalty surely must recommend

. Sheehan arose to request Mr. Ker- to withdraw his name from nomina- When it was seen that Mr. Sheehan earnest in his desire to step aside, his ous action met with much applause.

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1828 EIGHTY-FIVE YEARS SUPREMACY 1913

FIFTH AVENUE AND SEVENTEENTH ST., NEW YORK

SHOWROOMS—New York, Boston, Detroit, Chicago, St. Louis, Denver, San Francisco, Washington, D. C., San Antonio, New Orleans and Montreal.

BRANCHES — Boston, Chicago, Philadelphia, Detroit, Minneapolis, Washington, St. Louis, New Orleans, Denver, San Francisco, San Antonio, Atlanta, Seattle, Portland (Ore.), Indianapolis, Pittsburgh, Cleveland, O.; Kansas City, Salt Lake City.

CANADA—Mott Company, Limited, 134 Bleury Street, Montreal.

Upon motion of John W. Sands, Brooklyn, the nominations were closed. Judge Andrew H. Brown announced, when the ballots had been cast and counted, that George L. Brucker, Utica, would be the new vice-president. Immediately George H. Creasy rose and requested the election be made unanimous.

J. L. Murphy, New York, nominated Charles Campbell, Watertown, to succeed himself. Mr. Campbell has been an efficient and painstaking treasurer, and, as he accepted the trust placed in him, will handle the funds of the organization for the ensuing year.

For the first time in many years nobody shouted "hoot mon." Fred Fladd was asked to escort his old friend Charles to the platform, which he did. In his speech Mr. Campbell stated that he was just rounding out 10 years' work upon the executive board.

At this juncture Mr. Caines selected Al. C. Kranichfeld, Buffalo, as his secretary. The action of the newly elected president was concurred in by the convention.

The newly elected executive committee follows: T. E. O'Brien, Brooklyn; John J. Hannegan, New York; James H. Doody, Albany; John R. Sheehan, Schenectady; Fred. Le Valley, Elmira, and John F. Knaupp, Troy.

Utica was selected as the city in which is to be held the 1914 convention. The Mayor of the city, besides the Chamber of Commerce, extended cordial invitations, and these, backed up by the demands of the Utica members, there was nothing left to do but to accede to their wishes.

Upon motion, duly seconded, presented by

Fred. F. Fladd, a committee is to be appointed to procure suitable testimonials for the retiring president, Frank B. Lasette, and his secretary, John J. Hannegan, as a slight appreciation of their invaluable and cheerful services rendered during the year for the good of the cause.

Upon motion of Mr. Fladd, a rising vote of thanks was recorded for the retiring president, his secretary and the entire board. Upon motion of Frank L. Beyer, a special vote of thanks was given the trade press for their courtesies during the past and also in anticipation of the good things they must say about the Buffalo convention.

The per capita tax will rest at $3 during the ensuing year. Considerable discussion was entered into respecting a decrease to one-half the sum, but it was the sense of a majority of the delegates that it remain at the $3 figure for the ensuing year.

For the first time in the history of the New York State association the *sine die* adjournment did not take place upon Wednesday until 9.03 P. M., despite the fact that the banquet had been waiting one hour. In every sense of the word it was a record convention.

A Page Full of Happy Buffalo Reminiscences.

Monday evening three hundred members and guests, approximately, of the Buffalo Association journeyed to the Garden theater where they were entertained by Comedian Arlington and his staff of grenadiers. Everybody enjoyed the performance, which was high grade burlesque.

Upon Tuesday evening the crowd visited Shea's theater where a party was given by the local association. Some three hundred seats down front in the orchestra had been secured for the delegates and guests, and a banner show was presented for their entertainment. Many agreed that it was the acme of excellence in vaudeville presentation.

Iroquois Hotel Banquet a Huge Success.

Because of the lateness of the hour for the final adjournment of the convention the banquet at the Hotel Iroquois on Wednesday night did not get under way until 11 o'clock. When the guests had secured their seats no time was lost by Toastmaster George Drake in issuing instructions for them to lay to. No further words of encouragement were needed. The thoroughly famished banqueters did full justice to the following menu, the excellence of the preparation of which needs no further mention:

MENU.

Cape Cods.
Martini Cocktail.
Mock Turtle, Aux Quenelles.
Olives. Celery. Almonds.
Sauternes.
Planked Lake Erie White Fish, Manhattan.
Potatoes, Viennoise.
Stuffed Sweetbread, Montebello.
Peas, à la Creme.
Champagne.
Sorbet, à l'Orange.
Roast Royal Squab, Sur Canape.
Salad de Saison.
Nesselrode Pudding.
Lord Salisbury Cigarettes.
Assorted Cakes.
Coffee.
Cigars.

When cigars had been lighted and coffee served Toastmaster Drake expressed his delight at so large and decorous an assemblage. He did not enter into any lengthy speech, because as, he said, there were a number of orators present, and the hour was past midnight, so forthwith he presented the mayor's secretary, Mr. Sayles, whom we had previously met. Mr. Sayles was in his very best vein, and included in his talk many humorous references to the various cities of the state association, all of which, or nearly all, he mentioned as he went along. For a half hour Mr. Sayles enjoyed the closest attention of the gentlemen present, and when he reached the finish of his address, he was cheered to the echo.

Herbert A. Meldrum, president of the Chamber of Commerce, made a brief address of welcome; as did his secretary Mr. Keefe.

Hon. Edward R. O'Malley, former attorney general of the state, and a tried and true friend of the master plumbers association, was introduced to a hearty reception. Most of us had heard this princely orator at a former banquet of the Albany association. Mr. O'Malley's toast was the New York State Sanitation Laws. He was peculiarly well fitted to discourse lengthily and interestingly upon this topic, because in his activities as a Buffalo official he had ordered thousands of the yard closets removed, and replaced with up-to-date materials. Getting down to the question of laws, Mr. O'Malley mentioned the police situation in New York, and other cities, where evidences of graft is being furnished daily; and stated that if we could get down to the principles of Abraham Lincoln, who stated, that with honest men in office, there would need to be no limitations surrounding them. If we were honest, all of us, no laws at all would be necessary to check us. Mr. O'Malley referred to the old laws of the State, the various charters under which we operated away back in the early history of the state, and mentioned that for a long time, in fact until within the past forty or fifty years, the majority of positions, now elective, were appointive. Elective offices in all cases, he opined, for the best government. We regre deed not to have been able to secu verbatim report of this excellent ad Needless to say when Mr. O'Malley reached the close of his address he cheered time and again.

ASSISTANT BUILDING SUPERINTENDENT M. J. KENNEDY AND PRESIDENT D. J. DONOVAN, OF BROOKLYN ASSOCIATION.

National President Frank J. Fee met with an outburst of applause whe was introduced by the toastmaster. I away he sounded the keynote of speech. Loyalty of members to the tional association, which had made i most powerful organization of its ki the world. Powerful not in selfish but powerful for the good not on its members, but the entire citizens these glorious United States. Mr. spoke of the legislative measures guarding the health of the community majority of which had been placed the statute books of the various Stat the master plumbers' associations. N ever opportunity is offered to safe the health of the country, the m plumber will be not found wanting ing up the gauntlet. And if opportu are not presented he will make them a matter of real fact the health o nation depends more especially upo honest and capable application of sa installations, and the life and exact the master plumbers' profession is ent ly devoted to this uplifting cause. A ovation awaited our National Pres at the close of his splendid address.

Frank B. Lasette, whose administr as president of the State Association with such signal success, due to econ cal and progressive measures, was a flattering reception at his introdu by toastmaster Drake. He launched into an earnest defence of the m plumber as a business man, but as a p ct first, whose services in behalf of human family are second not eve those of the medical profession. Th vances made in health were due pa larly to ourselves, said he. No selfish tives should be allowed to creep in. have assumed a heavy obligation, th remedying the world's ills by careful, scientious and skillful application of laws of sanitation. We must not in our noble work of producing happ to the greatest number. Our efforts now being recognized more than eve fore; and members of our craft are appointed to health boards throughou various communities, which is as it sh be. Who is better qualified in the nature of his business to safeguard protect the health of cities so mu the master plumber, whose knowled drainage, ventilation, and domestic gineering generally is supreme? thirty years of hard, laborious work selfishly rendered by those veterans our craft, whose examples we are t to follow, a universal respect is shown us. Nor must we permit th wane. Ever watchful of the interes the citizens of this country we mus fail to insist that the application of tation be made only by those who th experience, wisdom, and skill are best to apply it—and in the last analys will be found that the members of

master plumbers association are the best qualified for work of so important a character. A volume of cheers followed cheers as Mr. Lasette brought his eloquent speech to a close.

Walter H. Caines, the newly elected State President, was cordially received. He pledged himself to the members of the State association and in so far as he was able he would serve them as they would be served. He recognized the responsibilities which the office carried with it, and was fully cognizant of the work which a successful handling of the presidency entailed. He hoped, in fact, he knew he could rely upon the hearty co-

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operation of the members from the various locals in the state association, and upon surrendering the gavel to his successor one year hence he sincerely trusted that his stewardship would merit the commendation of his fellow members. Mr. Caines' sincere expressions met with the approval of his audience, and he was riotously acclaimed by delegates from all corners of the banquet chamber.

Former National President A. C. Eynon was the recipient of unusual applause when being introduced by the toastmaster. Mr. Eynon stated that our estimate of ourselves will be the one taken by the public. If we occupy seats in the gallery, said he, in his theater smile, we will be regarded as gallery gods. If, perchance, we assume, metaphorically speaking, chairs in the balcony, ours will be a little better recognition, but if we reach for divans in the orchestra, and seats in the boxes, we will be more favorably regarded. It is up to ourselves more especially how we would be taken by those with whom we come in contact in the general intercourse of business. By ability, decorum, and high grade principles, we cannot fail to assume the very best of positions. Slipshod methods, and a lack of personal respect, will only earn an indifferent regard from our fellow citizens. Educate yourselves in all things pertaining to your business. Elevate where you can the fellow members of the craft who require a helping hand. Protect the dignity of your calling. Do not let it be trampled in the dust by the thoughtless and careless, who, doubtless, without thinking places all members of the craft with the poor ones whom they have met. In the ranks of the master plumbers are gentlemen capable of the highest offices in commercial life; gentlemen who have occupied responsible governmental positions; and gentlemen destined to make the world ring with the achievements of the beloved profession which will forever redound to the glory of the craft. Aim at a high standard, and keep everlastingly at it. The influence of Mr. Eynon's remarks was apparent, and we trust will have a lasting effect upon those members of the association who were privileged to listen to his inspired words.

In between addresses by the orators of the evening artists rendered topical songs in character, and a rare good evening was the result of the general arrangement. The banquet was superb, and the management of everything in connection therewith deserves special mention.

Fred Zander, a popular Buffalo supply dealer, rendered by special request "Von Der Goltz." His various stanzas were interrupted by an excitable German, whose vocalizations had Weber & Field at a sad disadvantage, and who, while cautioned by Mr. Kavany, was irrepressible, much to the amusement of the diners.

The banquet was brought to a happy termination at 3 o'clock in the morning. Here again was another convention record established. Best of all every one staid to the finish, and that is as it should be. The orchestra broke into "Auld Lang Syne" which was sung by the banqueters who with hands clasped stood and loudly rang out their best notes in support of the spirit of this best of songs.

Frank B. Lasette Guest at Luncheon.

Some fifty delegates tendered a luncheon to Frank B. Lasette in the Iroquois Hotel Wednesday afternoon as a special recognition of the great work accomplished by this association general during the past year. It is generally agreed that the association was never in such a flourishing condition, and in selecting Mr. Lasette for this mark of honor they placed the credit where it belongs. A general good time was had at table for a couple of hours. Upon account of the afternoon session being arranged for 2.30 p. m., only speeches of the briefest nature were permissible. National President Frank J. Fee, and former National President A. C. Eynon expressed their recognition and appreciation of Mr. Lasette's invaluable services in well termed phrases.

Trip Through the Gorge Route at Niagara Falls.

As a recognition of the valiant services of the Manhattan association, which always meets in Terrace Garden, New York, a start was made from the Ter-

BUFFALO, NEW YORK AND TROY DELEGATES GROUPED FOR PHOTOGRAPHING.

race station, Buffalo, at 10.40 A. M., Thursday morning on a special train of five coaches, which were comfortably filled by the some two hundred delegates and guests who responded to the invitation of the Buffalo entertainment committee. While it was cloudy when the start was made, the day grew clearer as the sun climbed its orbit, and by noontime the weather was clear, sunny and bright. Now can you beat that. The prognostications of the weather bureau were for rain, but the plumbers turned off the water, and a rare March day was the result of their ability to cope with meteorological conditions.

Arriving at Niagara Falls each member of the party was presented with a highly colored tape measure in case with photographs of the American and Canadian Falls on either side. The cars of the Gorge Route were in readiness to transport the gentlemen through the Gorge, and an extremely enjoyable two hours of sight seeing was indulged in. Occasional stops were made en route to examine the plumbing on the Canadian border. All agreed that there is urgent need for some up-to-da tary installations in some of the r rooms on the other side. Brock's ment was visited by a party. An inte item in connection with this statem that National President Eynon of a f administration, was born at St. Cath which is within seven or eight miles monument. Mr. Eynon, while in th cinity stopped off to pay his affection spects to a sister.

The cataracts, rapids, whirlpool, fal por effects, etc., were unsurpassed. sun shone and glistened, producing effects, to vie, undoubtedly, with th rora borealis, and in this marvelous of nature each and every one of the aboard took the keenest enjoyment. Lasette, who is an ardent disciple of Ike Walton, spoke of some photos h on a previous occasion of the fish swin up the Falls. It was a marvelous said he, and a rare one indeed. Jack kins asked Frank, his playmate, to the needle, so that we might all h jab. James B. Cassedy excitably po and with pride, to the suspension b which was constructed by those en Bostonians, Edward C. Kelly and

Craig. So proficient are our artisan it is impossible, almost so, to visit an tion of the globe without being confr with some excellent sample of their h work.

Thoroughly expectant, and with tites whetted to a point of avidity travelers were escorted by the com into the Imperial Hotel, Niagara Arrangements had only been made fo hundred and fifty, but Proprietor G wood, with his customary excellent ma ment and courtesy, immediately pre additional supplies for the extra fifty sons, and everything, due to his car skill as a manager of hotels par excel moved along smoothly and pleasantly. dinner, in fact it was one, although it designated as a Pilsener luncheon, w real hit. There were viands and d cies aplenty, full cognizance of which taken by the two hundred champion tities which enjoyed unbridled freedom

One hour after luncheon was spent Goat Island, the place where "goats" when gotten are sent for ru

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Engineers' Supplies a Specialty.

George H. Drake, good for him, up against the hackmen who, when saw the crowd, advanced their prices er cent. ad valorem. Quoth George leader of this gang of bandits, "go kewise "from." "Boys," said he, "we p against a hold-up, and we won't for it." "We'll walk." And walk we njoying every foot of the short dis-

It is a great pity that in this won- section of God's Universe, there restrictions placed upon the cab men, thers, who are inclined to be as ous of all things material as vultures. day we'll have a commission govern- with a master plumber as the presi- thereof, and a square deal will be all, without regard to color, creed or ation.

cial coaches upon the train which left alls at 5.30 P. M., brought the crowd to the city of Buffalo in excellent . Fortunately there was not an accident or an ill word to mar the day's pleasure.

A FEW WANDERING SHOTS WHICH HIT THE TARGET.

"The next convention I attend I'm going to stay home," said our good friend Albion J. Eckert, president of the Albany association, in a moment of peevishness.

Birthday Party at Niagara Falls.

Edward MacDonald, Brooklyn, was born fifty years ago upon March 10. A celebration of a surprise nature was worked upon the unsuspecting Edward when the Brooklyn contingent visited the Falls on Monday. While he was reminiscently thinking of the many happy days of his life, and held his hat in his hand in a reflective mood, his confreres from the City of Churches dropped therein a number of cigarettes, cigarette coupons, a cigar, or two, some cancelled revenue stamps, numberless souvenirs, of all natures and descriptions, and last but not least fifty pieces of money. Mr. Macdonald was so agreeably shocked with the honors so generously accorded him that he was at a loss to find words to suitably express his indignation—rather delight at the thoughtful—yes, charitable—consideration of his Brooklyn friends. Some mighty strong speeches were indulged in, all in Ed's. favor.

Anent the Distribution of Souvenirs.

It is a great pity that more order does not prevail in the matter of souvenir distribution. Each year, sorry to relate, some one person or several, suffer the loss of valuable souvenirs through faulty distribution. It is about time that the association looked into this matter. In fact, no delays should be allowed. A certain young master plumber from Manhattan, and a new delegate, this being his first convention, whether State or national, was shut out of a

valuable gun metal watch, simply because his interests were not looked after properly. If we do not care for the young of the flock, how can we expect to maintain their interest and enthusiasm. This gentleman expected one of the two hundred and fifty which were distributed, but he did not get it. Why? We seem to think Jake Jarcho might explain. As a matter of fact he wagered with brother Gluckman that the latter would not get a watch. He did not get the watch in question, but got another, a nickel watch, as he explained, which, while serviceable, was not as valuable as the one which he so earnestly desired. Mr. Gluckman also got a souvenir spoon. But he did not get a gold fountain pen, a silver whistle, a four-foot silver bound rule, nor some of the more delicate souvenirs, such as a bottle of Houbegant's Ideal. It is high time that one man should be held responsible for the proper distribution of souvenirs. Quite properly Jerry L. Murphy placed it at the door of some one else, forced to pay high toll rates upon the Bell System simply because he was paged at the hotel, and manfully asserted his rights. This is another item that needs looking into. "Denny" Donovan thinks so, and at once.

Exhibitors of High Grade Materials in the Trade.

The Zander Plumbing Supply Co. exhibited in their parlors their new line of "Sanisteel" seats and tanks. An immediate and favorable impression was made upon an interested trade. Fred Zander was adequately assisted by Mr. Irish. Pencils of value were distributed free.

J. H. Harper and O. W. Gleason, courteous and gracious representatives of the Pearless Selling Co., Evansville, Ind., were present greeting their many friends in the trade. Harry F. Weaver, their secretary and general manager, who has an enviable acquaintance with the trade all over the city, was detained in the west unexpectedly.

MANHATTAN DELEGATES TO BUFFALO CONVENTION.

in this instance, the Brooklyn delegation, especially mentioning J. W. Sands. Thomas E. O'Brien took up the challenge, however, and stated that the Brooklyn delegates might take two or more watches, but that 't never yet had been shown that their members were so lacking in principle as to sell a watch in front of the hotel. And this Mr. O'Brien saw a Manhattan man, so he said, do with his own eyes. This is too much. Aye it is much too much. Redress should be given, and immediately. No time must be lost in making restitution to the young delegate mentioned above of his rights and privileges. He is just as much entitled, he affirmed, and intelligently so, as any delegate—Jake Jarcho in particular. Of course, when one is up against a clique, he's got to be some busy to beat them to it. We sincerely trust that the matter will be threshed out, and that justice, if not satisfaction, will be rendered the delegate who sustained, through no fault of his, the loss of a valuable time piece which it was the intention of the donor he should receive. Then another thing. Who's going to pay for that 40 cents telephone message? Not only does he not get his watch, but he is While absent in the flesh, he was present in spirit. The advantages of the Peerless products were fulsomely and profitably set forth by the efficient duo of representatives.

H. P. Baldwin, representing the Quinn Manufacturing Co., Detroit, Mich., producers of the famous "Quinn Quality Closet Combinations," was an extremely busy gentleman entertaining and greeting his many friends in this section. Incidentally, besides expatiating upon the merits of the Quinn Quality products, he distributed generously a brass six inch rule, which was joyously received by the delegates.

Frank Crotty, one of the noted "Crotty trio" of Central Foundry representatives, was present early at the convention, and was at all times active in the interests of the F. & W. department. He was the center of many groups making known the advantages in installation of the economical and scientific F. & W. products. Jerry Donahue, perhaps the oldest solicitor of the Central Foundry Co. has in its employ, dropped in casually at the convention, and met his many friends from all over the State. Mr. Donahue's popularity increases like the virtue in good wine. He attended the many convention functions, and his agreeable presence assisted greatly in adding to the harmony of the occasion.

Otto Hahn, Louis Lipp Manufacturing Co., Cincinnati, was an early attendant at the convention. Otto is the dean of plumbing material salesmen. To-day he stands 56 years old in his stocking feet. For 35 of these 56 he has been traversing the American continent in the interests of well-known purveyors to the craft. As one friend so truthfully said, "If Otto doesn't know them, they ain't."

For several courtesies, so pleasantly extended by our old friend, we are duly grateful. Otto, we'll get you yet.

Walter P. Deutsch, of course we know it wasn't Raymond, of the Empire Brass Manufacturing Co., was present from the first to the last. His winning personality and gentlemanly address won for him such friends as he did not already have. We have known the subject of this paragraph for 10 or 12 years, and in all that time have yet to find him wanting upon any occasion. His character is as neat as his appearance, and that's going some, believe us.

The Edward J. Rice Manufacturing Co., Rochester, N. Y., was ably represented by Mr. Rice, Jr., who is active and successful in the distribution of these specialties, and for them he is developng quite a vogue with the trade. The products of the Rice Co., which just now are being featured are the No. 1 Rice Combination Cast Iron Water Closet Bend, the No. 2 Combination Cast Iron Water Closet Bend, and the Rice Extension pieces. Mr. Rice has attended several State conventions, notably at Troy, where he received a great many orders which since delivery have won the admiration of the craft.

Unqualified Praise for the Committee.

To the able, courteous and tireless committee of arrangements the thanks of the entire convention is due and hereby expressed. The MERCHANT PLUMBER AND FITTER has been requested to extend the thanks of the various delegations throughout the State association for the fine times and continuous high-grade entertainments which were so generously presented by the committee of arrangements, of which the following gentlemen were members: Chairman, John J. Kavany; Geo. H. Drake, A. C. Kranichfeld, Thomas J. Kavany, Geo. D. Clucas, A. J. Batt, W. F. Waldow, Walter H. Caines, James J. Bresnahan and Charles A. Smith.

The following is a list of the officers and delegates present:

Officers.—President, Frank B. Lasette, New York; Vice-President, Walter H. Caines, Buffalo, N. Y.; Financial and Recording Secretary, John J. Hannegan, New York; Treasurer, Charles A. Campbell, Watertown; Retiring President, John H. Moran, Albany.

Delegates-at-Large.—T. E. O'Brien, Brooklyn; Frederick Le Valley, Elmira; John F. Knaupe, Troy; J. R. Sheehan, Schenectady; George L. Brucker, Utica; Louis J. Yauchzi, Rochester.

Past State Presidents.—Charles Geiger, Buffalo; Charles B. Huck, Buffalo; Frank L. Beyer, Buffalo; I. J. Brown, New York; B. F. Donohue, New York; John H. Moran, Albany; John E. Dugan, Albany; B. Joseph O'Donnell, Syracuse; Frederick E. Fladd, Rochester.

Albany.—Albion J. Eckert, Thomas A. O'Malley, Frank F. Schimpf, Joseph P. Magin, John J. Britt, James H. Doody, William H. Brannin, Jacob Noord, H. Wilbeck, William H. Wareing.

New England News.

A RECOMMENDATION of the finance committee of Watertown, Mass., to make the salary of the inspector of plumbing $1,200 precipitated dissension. James W. Ferron argued for as large a salary for the inspector of plumbing as for any member of the board of health. A salary of $1,400 was unanimously voted.

When the provision in regard to the appointment of a plumbing inspector for New Britain, Conn., was taken up in the common council, Alderman Kerwin moved that he be a licensed plumber and Councilman Landers objected. Motion was lost. Alderman Olson said that he thought it was more important to have the city collect ashes. Alderman Quigley moved that the inspector shall not be a member of the board of health. Carried. It was voted to accept the amendment for a plumbing inspector.

Archibald Kutberthson, for 11 years secretary of the Holyoke (Mass.) Master Plumbers' Association, presented his resignation, and C. P. Lyman will act in his place for the present. Mr. Kutberthson has withdrawn from the trade and entered the employ of Louis A. La France, the contractor and builder, for whom he will act as cashier and confidential man.

F. & F. C. Booth, of Bridgeport, Conn., have been awarded the contract for the plumbing and heating in the handsome residence at Brooklawn for Bronson Warren.

The board of health of New Britain, Conn., held a meeting March 5 and tried four plumbers on charges of violating the city ordinances. It was voted to suspend them from 30 to 60 days. The names were not made public.

The Vermont State board of education with the approval of the Governor has been authorized and directed to provide for the furnishing and installation of a steam heating plant in connection with the buildings of the State normal school at Castleton.

Carl I. Stevens, of Marlboro, has opened a plumbing and heating shop in the rear of A. T. Haynes' store at Maynard, Mass. Mr. Stevens has had about 16 years' experience and six years in business for himself in Marlboro.

Clarence R. Austin, who recently resigned from the employ of the firm of F. A. Hull & Son, with which he had been associated about 24 years, formed a partnership with Charles R. Norman, of Danbury, Conn. The firm will be known as Austin & Norman and will occupy the building in the rear of the new building of the City National Bank, where Mr. Norman has been located. It will carry on a general plumbing and heating business.

The Riverton, Me., Master Plumbers Hold a Social Session.

THE master plumbers of Riverton, Me., and their wives enjoyed an evening at Riverton Casino March 5 when about 30 of them went out for the annual banquet and outing.

Dinner was served in the red room, and during dinner Gibb's orchestra furnished the music. Following the dinner, dancing was enjoyed until a late hour and in the party were Mr. and Mrs. R. A. Godfrey, Mr. and Mrs. M. H. Myers, Mr. and Mrs. Frank A. Davis, Mr. and Mrs. Fred H. Stuart, Mr. and Mrs. Charles O. Morton, Mr. and Mrs. W. A. Allen, W. A. Sawyer, Mr. and Mrs. C. Madsen, Mr. and Mrs. John M. Kane, Mr. and Mrs. George Stevenson, George W. Cutts, F. E. Wheeler, David A. Calhoun, Mr. and Mrs. P. A. Mahoney, Morris Yudeon, Mr. and Mrs. J. H. Hazelton, Mr. and Mrs. Harry Fuller.

Massachusetts Chapter of Heating and Ventilating Engineers Holds Dinner.

THE Massachusetts Chapter of the American Society of Heating and Ventilating Engineers went on record, at a dinner held at the Cafe Louis, Boston, March 11, as unanimously in favor of legislation providing for a minimum requirement of 15 cubic feet per minute per occupant in the ventilation of theaters and moving-picture houses.

The chapter had as its guest Frank T. Chapman, chairman of the national society of New York City, who urged strongly that Massachusetts adopt some law requiring a minimum ventilating space of 15 cubic feet and a minimum of 4½ square feet of floor space per occupant, exclusive of passageway.

This discussion was with special reference to motion-picture show places, and it was partly as a result of a wish expressed by General Whitney, of the Massachusetts State police, that some comprehensive legislation be passed during the present session regulating the ventilation of moving-picture houses by which the inspectors and district police could be definitely guided and controlled.

Mr. Chapman declared that when one took into consideration that in New York City alone more than 300,000 people attend moving-picture shows daily, and that in Boston at least 100,000 people attend daily, the vital necessity of proper ventilation of picture houses could not be overemphasized. He stated further that there were very few houses properly ventilated.

While it was stated at the dinner that the laws of Massachusetts are very stringent with regard to the structural requirements of the building of booths of moving-picture places, the laws of the commonwealth provided no definite provisions or directions by which the inspectors and district police could be guided with relation to the ventilation of this class of amusement houses.

Another point brought out was the fact that the motion-picture houses in Boston and vicinity, as a rule, have a larger capacity than the same class of houses in the city of New York.

Maine Plumbing Salesmen Meet.

THE seventh annual meeting and spread of the Plumbing, Steam and Metal Salesmen's Association of Maine was recently held at Riverton Park Casino, Portland. The attendance was up to the general average of former years, which indicates the brotherhood and loyalty that exist in the association.

George W. Paul, of the Crane Co., the retiring president, presided over the business meeting, which was called at 6.30 P. M. After the usual business had been erased from the slate, the association selected its officers for the ensuing year, as follows:

President, Byron E. Near, Portland, representing H. W. Johns-Manville Co., Boston branch; first vice-president, Archie E. Campbell, Cambridge, Mass., Wm. H. Gallison Co., Boston; second vice-president, Shirley R. Mitchell, Medford, Mass., Walworth Mfg. Co.; third vice-president, J. M. Griffith, South Lyndeboro, N. H., Thomson-Durkee Co., Boston; treasurer, A. M. Rosebrook, Portland, Gurney Heater Co., Boston; financial secretary, Wm. F. Snow, Portland, J. L. Mott Iron Works, Boston branch; recording secretary, Ellsworth F. Hayden, Portland, the Smith & Abbott Co.

After the election of officers the members adjourned to the Red Room, where a bountiful repast was served under the supervision of Manager Dan Smith. An orchestra of seven pieces entertained the diners with spirited selections during the banquet, and then came the songs and choruses, that were participated in by the entire company, who were all there with the melody.

The following members were present: W. E. Choate, representing Fairbanks Co., Boston; John H. Douglas and Rupert C. Parker, representing the Smith & Abbott Co., Portland, Me.; C. S. Mallard Herrick Co., Boston; C. R. Nelson, Magee Furnace Co.; Herbert S. Wakeley and Irvin E. Fogg, H. W. Johns-Manville Co., Boston branch; Everett C. Mann, Austen & Daten, Boston; Jos. E. Herrick, Abendroth Bros., Portchester, N. Y.; T. F. Guion, Page Boiler Co., Norwich, Conn.; J. E. Hodgkins, Jenkins Bros., Boston; H. P. Files, Crane Co., Boston; F. A. Taylor, Brown-Wales Co., Boston; J. Warren Chase, W. L. Blake & Co., Portland; Geo. H. H. Lawton, Portland Stove Foundry, Portland; R. A. Nardblom, U. T. Hungerford Co., Boston branch, and George H. Paul, Crane Co., Boston branch.

Election of Officers at Baltimore, Md.

AT a meeting of the Association of Master Plumbers of the State of Maryland held Thursday, March 13, the following were elected officers and di-

Greater New York News.

MANHATTAN.

A Welcome Visitor.

WILLIAM GRIFFITHS, president and general manager of the I. X. L. Pump & Mfg. Co., 957-961 N. 9th St., Philadelphia, Pa., paid us one of his regular visits last week. Mr. Griffiths has developed a considerable business throughout the country, due to the excellence of material and perfection of manufacture in connection with his various products, all of which, by the way, he has personally invented. He is an enthusiast upon trade topics, one of the best friends the plumbers have, having for many years been one himself, and is qualified to present materials which will earn respect and usage of the craft.

Howard M. Bullard, dealer in plumbers' specialties, formerly of 1023 Lexington Ave., has moved to larger quarters at 1251 Lexington Ave., where all orders will receive prompt attention.

Richmond Radiator Company.

THE affairs of the McCram-Howell Co., of New York, have been closed up, the receivers discharged and the property turned over to the Richmond Radiator Co.

F. H. Moore has been placed in charge of the company's operations as president.

The company's property was bought in at foreclosure sale by the creditors' committee and by them turned over to the new company. The price paid was $870,000. The treasury is understood to have about $500,000 cash and no debts other than current items.

New York Chapter American Society of Heating and Ventilating Engineers.

THE regular monthly meeting of the New York Chapter of the American Society of Heating and Ventilating Engineers was held in the Engineering Societies' Building, New York, on Monday evening, March 17, with President F. G. McCann in the chair.

Secretary Joseph Graham announced the deaths of two of the chapter members: Dr. J. S. Billings, New York, an honorary member, who died on March 10, and J. A. Payne, member, Bayonne, N. J., who died March 3. It was voted to refer this to the board of governors for action.

The committee on tests of the New York chapter made a report in which was included the following:

"RESOLVED, That the committee on tests recommends that the New York Chapter of the American Society of Heating and Ventilating Engineers, through the trade press, invites all manufacturers of heating and ventilating apparatus, as well as all engineers, technical institutions, etc., to submit data covering any tests of heating and ventilating apparatus and appliances that they may have made for compilation and submission to the society. Full details concerning all tests and the conditions under which they are made should be included. Communications should be addressed to The Committee on Tests, New York Chapter, American Society of Heating and Ventilating Engineers, 29 W. 39th St., New York."

It was voted that this report should be accepted.

Secretary Graham announced that, in accordance with the vote of the members, the meeting night of the chapter had been changed from the third Tuesday of the month to the third Monday.

C. L. Bulkeley then gave a talk on "Removing Steam from Dye Houses" and "Heating and Ventilating of the New York Post-Office," illustrating with the use of several lantern slides. A vote of thanks was extended to Mr. Bulkeley for his kindness in giving this talk to the chapter.

BROOKLYN.

WOHL & RENDELSTEIN, jobbers and dealers in plumbing supplies at 612-14 Broadway, Brooklyn, have opened a branch at 3710 Thirteenth Ave., Brooklyn, which will facilitate the handling of their rapidly increasing business. The management of the Thirteenth Ave. branch devolves upon Charles Friedburg, a hustling young man who has grown up in the supply business. Mr. Friedburg has been with the present firm 10 years as sales manager, and previous to this was with Samuel Grossman, of Jersey City, and later with Chas. Weissberg, of Manhattan.

Graduation Exercises at Pratt Institute.

ONE hundred and twenty students of the evening classes at Pratt Institute, Brooklyn, N. Y., received their certificates on the evening of March 19 at the graduation exercises held in Emmanuel Baptist Church, Lafayette Ave. and St. James Pl., and listened with close attention to the word of advice spoken by Justice Frederick E. Crane. All the technical classes of the institute turned out graduates with the exception of the architectural class, the course of which has been lengthened from two to three years. Under a recent ruling of the faculty, which was made only after a thorough examination of the question, the senior class, which expected to terminate its studies last night, is compelled to remain another year.

Justice Crane in his address praised the graduates for their industry and perseverance, and entered into a lengthy analysis of the conditions which require the participation of skilled workmen in every trade and profession.

Following is a list of the graduates in the plumbing class:

Plumbing—Luther H. Bailey, James G. Bender, William John Brennan, Frederick R. Duesberg, William S. Fogue, Allen Hamilton, Fred Messinger, Lawrence Moran, Edward Taylor, John Wolf.

OBITUARY

George Thompson, Grand Rapids, Mich.

The funeral of the late George Thompson, a prominent master plumber of Grand Rapids, Mich, was held March 6 from his late residence, 560 S. Jefferson Ave., Rev. C. E. Clark, of First M. E. Church, officiating. Being engaged in the business continuously while in Grand Rapids, the deceased was laid to rest by fellow master plumbers. They were William J. Pulte, Andrew Muir, N. J. Hammer, R. E. Heth, John Bos and Joseph Van Rossum.

John M. McKay, Cleveland, O.

At a recent meeting of the Cleveland (O.) Master Plumbers' Association the following resolutions were drafted on the death of their late brother, John M. McKay:

Whereas, By the death of John M. McKay there is removed from among us one of the veterans of our craft, an exponent of the trade who desired, above all, to give the best, in all he undertook; one of the survivors of the art of plumbing; an honest Christian gentleman, a good citizen, and one who enjoyed the respect and confidence of his intimates, therefore be it

RESOLVED, That we, the Cleveland Master Plumbers' Association, extend to the family our sincere condolence and sympathy, and be it further

RESOLVED, That this resolution be spread upon our minutes, a copy sent to the family, and same inserted in *The Ohio Master Plumber*.

ED. ELLEN,
GUSTAV H. ARNDT,
D. H. ROBERTS,
Resolution Committee.

John Smith, New York.

John Smith, 58 years old, of 655 E. 164th St., died at his home March 17 of heart disease. Mr. Smith was a master plumber and was a member of Architect Lodge of Masons, the Association of Master Plumbers of the City of New York and the General Society of Mechanics and Tradesmen. He leaves his wife, two sons and one daughter.

A New Catalogue for the Asking.

THOS. KELLY & BROS., of Congress St. and Forty-sixth Ave., Chicago, have just issued their 1913 catalogue, illustrating and describing their line of closets suitable for public institutions of all kinds, such as hotels, schools, railroad stations, factories, prisons, asylums, steamships, etc. If any of our readers has been overlooked in the distribution we would advise him to write the above concern and mention the MERCHANT PLUMBER AND FITTER.

New Jersey State Associ

THE annual convention of the Jersey State Association of Ma Plumbers will be held at Camd Monday, June 16, the day previous to the opening of the national convention at Philadelphia.

MERCHANT PLUMBER AND FITTER

DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUM CLEANING

Published Semi-Monthly at Fifth Ave., New York, N. Y.

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With The Hands

Address of Honorable William C. Redfield, Secretary of Commerce, at the 82d Annual Commencement Exercises of the New York Trade School, Wednesday, April 2, 1918.

A LITTLE thought about the words which we use in common speech sometime develops unexpected values in them. If, for example, I were to say to you, "please lift up your right hands," you would not think it a rude thing for me to say although you would probably wonder why I say it. Suppose, however, I were to say to you instead, "please lift up your right paws", then you would feel very differently about it, would you not? Why would you feel so? I am probably not wrong in supposing you would think me rather rude in the one case and quite civil in the other. That means that there is a differenc between the word "hand" and the word "paw" which makes the latter as applied to you seem a little derogatory. This feeling is not because the word "hand" is strictly more accurate than the other, for if I were to be very precise I should say, "please lift up your arms," for the arm is larger than the hand and it is the arm that really does the lifting. Yet you do not expect me to say, "lift up your arm." You are quite content to have me say, "lift up your hand", and you would not like to have me say "lift up your paw." So there is hidden away in these words a difference that you and I feel but one about which we have perhaps not thought very much.

Possibly when we were very small boys we heard our mothers say when our hands needed washing something, about "black paws" and felt the rebuke in her words.

Why is it then that we instinctly give to the hand a place of honor greater than the arm which moves it and that there is a higher purpose and a finer privilege granted to the hand that the nearest member to it in the animal kingdom has been given.

If from the mere physical basis we rise a step higher, we shall see even greater things than these for now the hand becomes the means of expression for the brain, and in so doing, expresses not merely the power of the brain, its cleverness, its motive force, but its moral values. For if the thought of the brain be cruel the hand is a destroyer. If the mind be of a brutal tinge, the hand expresses it brutally. The hand therefore becomes in a larger measure the outward index to the inward man, and what you and I are is in great degree shown by what our hands do. It is not the motive power within us for we have the best of authority for saying "As a man thinketh in his heart so is he," but it is the tool whereby the motive power finds practical expression in things done. Perhaps it would be fair to say that by the words he speaks and by the works of his hands a man is fairly shown. This thught was recognized by ancient writers who spoke of the Almighty as shown by the "power of His works," and by the ancient hymn which also says of the Creator "We will rejoice and give praise for the operations of Thy hands."

If then the hand is one of the great means of human expression it becomes essential that it shall be taught to express us truly. We take great care of its fellow-member, the tongue, which is the other great means whereby man expresses himself. We teach it a complex and difficult thing called "language" and train it through years in its efficient use until the man grows eloquent. There has been given to the tongue much more of training than to the hand and so our progress with its latter

HON. WILLIAM C. REDFIELD, SECRETARY OF COMMERCE.

means of human expression has been less rapid. For thousands of years there have been many men trained in speech but the teaching of the hands of the many is just begun.

Speaking then to young men who have been taught to match the work of the hand to the thought of the brain and the sight of the eye, let me suggest first of all that with your hands it largely rests to express what you are. They are one of the means whereby a man shows himself to his fellows.

Within reasonable limits the kind of work a man does indicates the kind of man it is who does the work. This puts great dignity upon the handicraft, links it up with all other forms of human expression so that he who work man truth just as he who writ preache- This is true of th his pencil, the engraver wo plate the mechanic at his vise, when he wipes a point, and the he lays a brick. Each in a v way is expressing himself t about him, and the finer the whether it be in mill or mine, at the plow, through the pres platform, the better the man be for is spirit and his cha through his workmanship. Lo long line of benches in a m What are the men doing ther their daily bread? Yes. But t doing more than that: they they realize it or not, putting feelings, emotions into the their work. Here is one who his physical condition is refle labor. Here is one poisoned and his work suffers either i quantity. Here is one mentally here is one resentful of injust one struggling to make good la ing; here is one oppressed b of care. Each of these men is himself in what he does and h it, and to an amazing extent that a skilled foreman, knowi and knowing the work, will a man is stale, tired, ill or carel

But the glory of the handic not only does it reveal the reveals him through constructiv makes him express himself in enriches and uplifts. I have of of the mechanic that he was way a creator; that there is more in the world that is good i hand be true and his heart be there was before he did his look about you in this great cit is it, looked at from our prese view, but the visible expression mechanics who made it are. course, the expression also of t thought and skill designed the ings and made the great plans embodiment established and m to the eye of the thinkers and that produced it, and as the finer than the things created, s that made the city are finer than cal town itself, better and mo than the things through whicl thought and labor they have i pressed themselves. I say "in do you ever think of the grea that are waiting in the brains o ics and the thoughts of desig brought some day into the ligh al! we have is but the founda which something greater is yet structed? For each great ship building and great bridge and fir there is a fellow hidden away the cells of thought but coming some day through the hand of th ic, the pencil to the architect o fingers of the draftsman. So have learned here in this schoo press your manhood better an expression you have learned als to a finer manhood for evermo by "stepping stones of our dea higher things." You are to

Behind A Trade-mark

FIFTY-Four years of consistent effort to produce the best Sanitary Ware ought to show in the product.

How well the fifty-four years, during which we have been making White Vitreous China Sanitary Ware, have been turned to account is not for us to say, but—our products are featured by the leading supply houses throughout the land, and we operate the largest individual plant in the country.

"The Anchor There means Quality Ware"

Thomas Maddock's Sons Co.

Oldest Sanitary Potters in America

Trenton, N.J. U.S.A.

what now is the finer structure that is to be. The work of the world is to be better done in the future than it has been in the past, and in that better-doing of good work you are to have a share. Your part is not that of one deserted, isolate, left to toil alone, but wherever you may be and whether you reognize it or not, yours is a share in the great work of uplift, in the raising of yourself and not of yourself alone but of all of us into a finer vision, into a brighter light and a clearer day.

To the man who with clear mind and trained hand expresses the best that is in him is his daily work, there comes often that finer thing which we call "devotion to his duty", that is the giving of a man's self to his labor. When this point is reached wherein the spirit of the man, heart and brain alike, is put into is toil, labor becomes in a true sense worship. For religion is not all in churches and sometimes a spirit shows even in churches which is not "pure and undefiled" religion. There is honest worship done in many a humble shop, and good men have been devout through saw and plane and good women through needles and scissors.

Then welcome, young men, into the great world of creators. Welcome to the joy of industrial combat where a quick brain guides a trained and ready hand. Welcome to the test of manhood and character, and to the expression of both in useful effort. Welcome to the fellowship of those who labor and who are brothers all in common toil, whether it be the work of the brain or the labor of the tongue or the toil of the arm. Welcome, I say, into the great fellowship of workingmen. May the work of the world be better and the happiness of the world be greater because you labor in it.

Perhaps you will think I ought to end here, yet for a few moments I would like to dwell upon conditions in the great world of commerce and industry into which you are about to enter. You are beginning your constructive work in the world at a happy moment, at a time when the currents seem to flow into a rising tide. Never has the human factor in our industries been given so true a measure of its value as to-day. The men within the mill are admitted on every hand to be of far greater value than the mill itself and profits are deemed wrong that spring from oppression of the worker. The greater corporations that carry on "big business" are adjusting themselves to meet the will of the people which is the law, and begin to realize that their security lies in service and in that alone. The industries of America are shaking off the shackles of a dead past and face serenely the prospect of a competition before which many of them have cowered in the past. Nay, among them many feel the inspiration of the larger freedom into which they are about to enter and the vigor which comes from an enlarged self-respect. Our America through these industries is reaching out to take its normal place in the great commercial arena of the world. We are no longer isolate. The oceans unite us to the markets of other continents and ships that pass by night and day carry the products of the hands of your fellow-workmen over every sea and into every land. American industry has long been a giant but is just awakening out of sleep and realizing that it has a giant's strength.

Now the products of our steel mills go abroad at the rate of a million daily. We are shipping the output of our factories in one form or another into foreign lands to the extent of almost fifteen hundred millions a year. Great as this total is, it is of greater import when we compare it with the past for the rate of increase in our foreign trade in manufactures of all kinds during the present fiscal year is thus far at the rate of about a half million dollars a day. Observe I say not a "trade" of a half million dollars daily, but an "increase" in the current year thus far at that rate. It is of interest also to note where this increase is and to find that it is in the sale abroad of manufactures ready for consumption that most of the present progress lies. In this single item the foreign trade of the nation has grown, in the eight months ending with February by eighty-one millions of dollars, or at the rate of increase in this single phase of our foreign commerce of ten million dollars monthly so far this fiscal year. So we are more than holding our own in the foreign field. The material missionaries of American skill and vigor and growing in numbers till in the competition of the world from which we were long excluded and from which we have too much excluded ourselves in the past we are known and respected.

You are doubly to be congratulated, first upon entering into active life with trained hands and minds fitted for the commercial work, and secondly upon entering that struggle at a time when the nation's commerce is more vigorous and its power more widely felt than ever before.

Plumbing in an Up-to-Date Hotel in the South.

FROM a plumbing standpoint the Hotel Mason, the foundations for which are now being placed at the northwest corner of Bay and Julia Sts., Jacksonville, Fla., will be one of the most expensively equipped hotels in the south, it being estimated that $60,000 will be expended on this one item alone.

In this connection some unique ideas will be incorporated in the plumbing construction. For instance, an automatic sewer ejector will be installed in the basement to dispose of the sewage from the lavatories, barber shop, etc., located in this part of the building.

In making the excavations for the hotel it was found that these departments would be considerably below the level of the city sewer pipes. This confronted the contractors with an engineering problem, and finally the ejector, which will be operated by compressed air, was hit upon to solve the problem.

The steam-heating plant is to be thoroughly up to date and will consist of a battery of three boilers, located in the basement, with the Low pattern ornamental radiators in each of the rooms. In the lobby and dining rooms the radiators will be enclosed in a recess and concealed with ornamental bronze grills.

A ventilating system designed to keep the rooms supplied with fresh a times, as well as being a cooling warm weather, will also be install

The bathtubs in the rooms w special feature. The tubs, weighi 800 pounds apiece, are square b porcelain and will be built into cesses. A number of the rooms supplied with shower baths.

On a recent trip to New York Mason, the owner, accompanied t Richardson, the contractor, and D. bone, who is to do the plumbing all of the plumbing supply houses, result that the Mason is to have best of equipment in that line.

A Friend in Need Is a I Indeed.

THE Eastern Supply Associa issued an appeal to its mem funds to alleviate the distre unfortunate victims of the flooded in the middle western States as fo

"To the Members of the Eastern Association.

"GENTLEMEN: Great floods and f devasted some of the middle States, destroying many lives and thousands of our people homeless.

"It is necessary that prompt and e measures be taken to care for and the sufferers.

"Therefore, under the auspices of mittee consisting of members of th ern Supply Association and the M turers and Dealers' Protective Asso it has been decided to collect funds of the survivors. Such funds are turned over to the National Red Society, Jacob H. Schiff, treasurer. Koven, of L. O. Koven & Bro., St., New York City, has consented as temporary custodian of our fu we trust that members of the pl heating and kindred lines will respo erously—and at once—in this grea gency. Checks should be drawn order of L. O. Koven.

"Sincerely,

"FRANK S. HANLEY, Secre

Air Washing New Venti Scheme.

"AIR CONDITIONING" subject discussed by J. I. an address before the S Technology Club, Syracuse, N. Y., M Mr. Lyle declared that porch sleep other old theories of ventilation ar of the past owing to the recent in of the air washing machine. He that several of these devices have b stalled in public schools in variou cities and are a success and in ti replace the various old methods of tion. The lecture was illustrated slides, showing the apparatus after been installed in buildings.

Sanitary Inspector H. S. Winte of Bayonne, N. J., reported to the B Board of Health March 12 the es cost of plumbing and drainage month of February was $10,299, re ing 12 old and 27 new jobs.

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Thirtieth Paper

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RULE 137. Where "flushometers" are used they must be supplied from tank pressure, unless otherwise permitted by the Superintendent of Buildings; the rising lines shall be at least 1½ inches in diameter, and the branches shall be at least 1¼ inches in diameter for water-closets and ¾ inch in diameter for urinals.

Plate 138 is a part section of a building in which the water-closets and urinals are flushed by means of "flushometers" or "flushovalves."

The water supply to these valves is taken from an attic or roof tank, as indicated on the drawing, and the water in this tank is used for no other purpose than flushing the fixtures, as herewith shown.

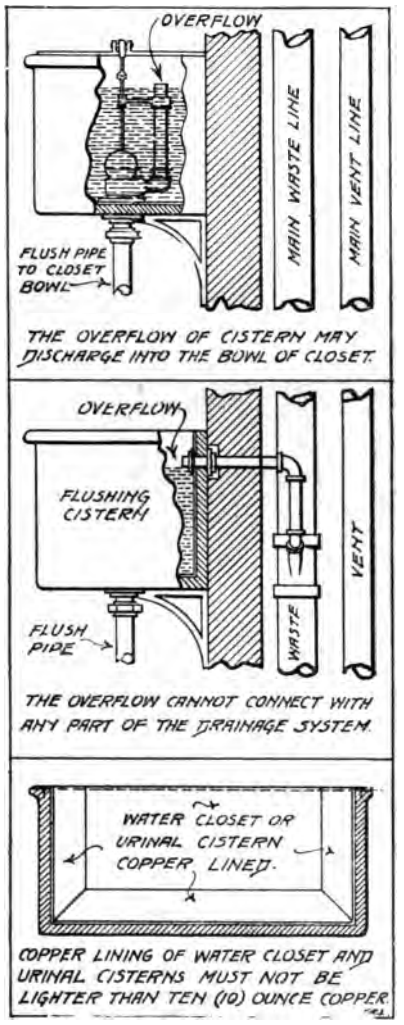
OVERFLOW
MAIN WASTE LINE
MAIN VENT LINE
FLUSH PIPE TO CLOSET BOWL
THE OVERFLOW OF CISTERN MAY DISCHARGE INTO THE BOWL OF CLOSET.
OVERFLOW
FLUSHING CISTERN
FLUSH PIPE
WASTE
VENT
THE OVERFLOW CANNOT CONNECT WITH ANY PART OF THE DRAINAGE SYSTEM.
WATER CLOSET OR URINAL CISTERN COPPER LINED.
COPPER LINING OF WATER CLOSET AND URINAL CISTERNS MUST NOT BE LIGHTER THAN TEN (10) OUNCE COPPER.

PLATE 139—ILLUSTRATING RULES 138 AND 140.

The water supply to tank is shown to the right of attic tank, near top. This supply is automatically controlled, whether from street or pump pressure.

The main supply from tank to supply the branches to fixtures is taken from the bottom of tank, the main supply pipe projecting up into the tank, as indicated by dotted lines, thus preventing the sediment which forms or accumulates in bottom of tank from passing through main supply and its branches to "flushometers," which sediment would conflict with the proper working of the valves; in fact, would prevent them from working at all on account of the small particles of sand, etc., which would interfere with the sensitive working parts of the valves.

Great care should be given the installing of the piping system for "flushovalves," as without this it is nearly always cause for the improper working of these valves, as stated above.

Directly under the tank on main supply pipe to branches we insert a valve which controls the entire flushing system, and allowing us, if necessary, to shut off the supply. Each branch line also has a valve to control the supply of water to that special branch.

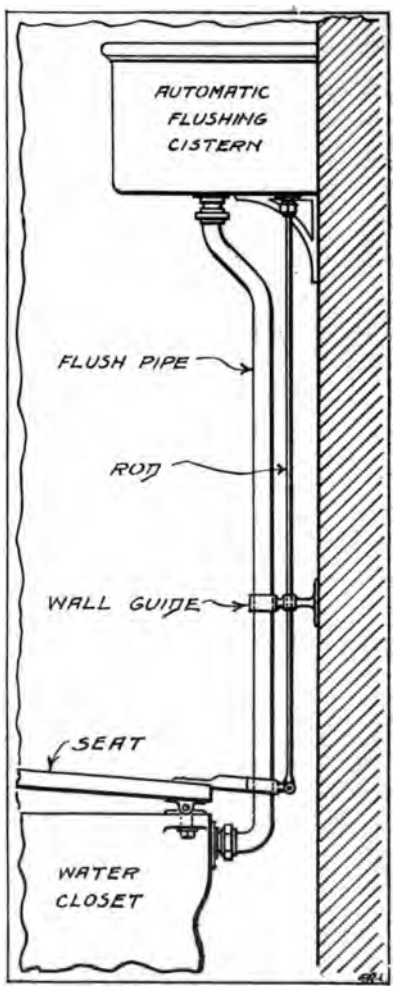

PLATE 140—ILLUSTRATING RULE 139.

These valves on branches permit us to cut off the supply to any particular branch to fixtures for repairing or cleaning and still allow the use of the other branches.

The main supply line to branches cannot be less than 1½ inches in diameter, as indicated, and branches to urinals must be at least ¾ inch in diameter, as shown.

For water-closets the branches to fixtures must be 1¼ inches in diameter, as shown on lower part of sketch (Plate 138).

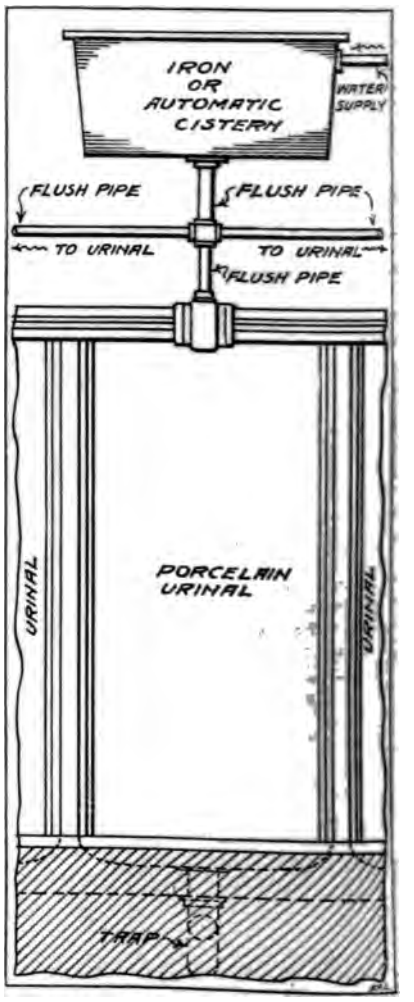

PLATE 141—ILLUSTRATING RULE 139.

It might be well, if our batteries of water-closets and urinals exceed in number those shown on illustration, to enlarge our main water supply pipe from tank to two inches in diameter, and perhaps more, the size depending largely on the number of fixtures to be flushed by flushometers These sizes can be readily computed or

L. & K. Valve.

L. & K.

Testing Valves and Plug

Patented September 6, 1898
No. 610,452

THE DEVICES herein illustrated have been invented and perfected by a plumber for the plumber—more particularly for the up-to-date plumber, who does a job to be a job. And as the proof of the pudding is in the eating, so the wind-up of a plumbing job should always be a thorough test of all the joints before the work is accepted.

L. & K. Test Plug.

The architect usually insists on such a test, and the plumber goes to an immense amount of labor and expense to convince him that the work is O. K.

But why should there be this expense to accomplish that?

No pressure test can be made unless all the outlets are effectively stopped, and there is where the expense "comes in" unless you chance to have in your equipment of tools a set of L. & K. TEST PLUGS AND VALVES.

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A thoroughly practical, non-technical treatise, written in simple language for those who desire reliable and latest information on all phases of Gasoline Automobile Construction, Operation, Equipment and Repair.

The widely varied experience of a recognized authority gained as driver, repairman and designer of automobiles since the inception of the American motoring industry, is condensed and simplified for easy assimilation. Advice and helpful hints are given by one who knows because of actual mechanical and engineering knowledge of all branches of the automobile business and should be of more value than the guesses and surmises of the theorist.

MERCHANT PLUMBER and FITTER PUBLISHING CO., 200 Fifth Avenue, New York

may be found already figured out in many of the text books and catalogues containing practical information.

And the branches to fixtures might also be enlarged one or more diameters, all depending, as stated previously, on the number of fixtures and the approximate number of times they might be flushed, together or singly.

As the branches to flushometers or flushovalves are taken off the main supply pipe, we may reduce this main supply pipe correspondingly as we near the lowest fixture or battery of fixtures.

As this Rule 137 states, and as the illustration Plate 138 shows, the inlet or water supply to flushometers must be at least ¾ inch for urinals and 1¼ inches for water-closets; consequently, our branches from main supply must be at least the same size as the inlet or supply to valve.

This should be strictly adhered to; and don't install a smaller branch, even if the building is of many stories and the water pressure a great deal more than required to operate the valve. We can readily adjust the valve to work whatever the pressure, but we cannot adjust the pipes to work the valves if we haven't the pressure. This is evident where several batteries of fixtures are worked simultaneously and require plenty of water and a good pressure; and if we have a smaller pipe to lowest fixtures than called for, we would be unable to flush them on account of no water and pressure, which have been taken up by the fixtures on the other part of the line.

Complying with the above instructions as to stated sizes of supply pipes to flushovalves or flushometers, we shall find without much doubt that they will work as satisfactorily as can be expected from some valves.

Rule 138. The overflow of cisterns may discharge into the bowls of the closet, but in no case connect with any part of the drainage system.

Referring to Plate 137 pertaining to this Rule 138 (and also Rule 140, the illustration of which is also shown on this cut), we show at the top of sketch a flushing cistern hung on wall with part of its end broken to show the interior valve and overflow to which this special rule applies. This ball valve is quite similar to many on the market to-day, and to the right of the casting, which has a perfectly ground seat for the ball to set on—thereby making an absolutely non-leakable joint—is a piece of pipe screwed in, as shown on the diagram, and extending up just a little above mean water line of flushing tank. This, of course, is the overflow, and any water entering this pipe is immediately discharged into the flush pipe through the brass casting directly under ball seat. The overflow water then passes through flush pipe into bowl of water-closet, and, as the above Rule 138 states, this is permissible.

The center sketch on this Plate 139 is of a similar flushing tank or cistern broken away from wall just enough to show an overflow which is not permitted, said disallowed overflow also coming under Rule 138.

We can see at the first glance that this is an imperfect connection and, indeed, most unsanitary.

We cannot discharge an overflow from closet cistern into any part of the drainage

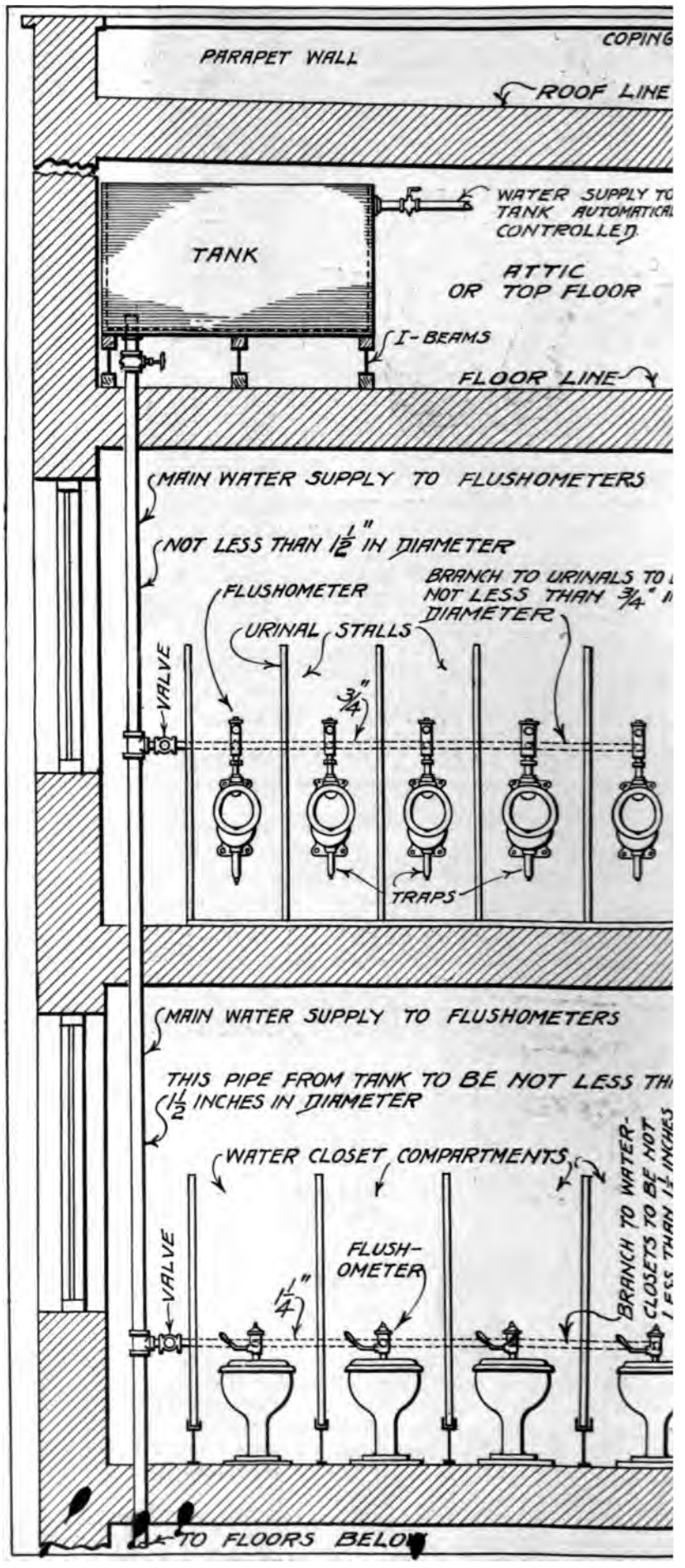
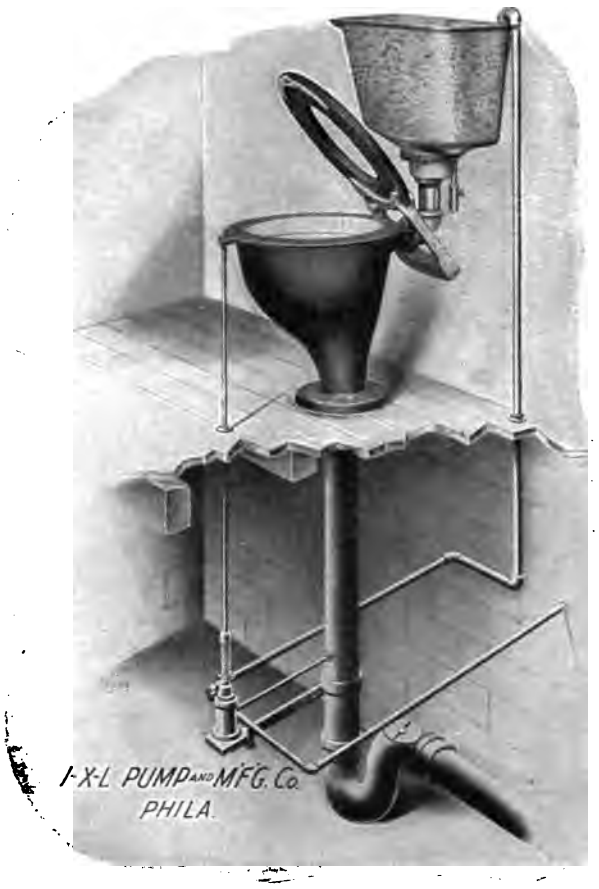


PLATE 138—ILLUSTRATING RULE 137.

Approved by the Philadelphia Board of Health

THE IMPROVED "I X L"

Anti = Freezing, Low Down Combination



(Plate 4 I X L Patent Applied for.) TRADE MARK I X L

The "I X L" Anti-Freezing Closet can be installed very quickly, it is simple, not complicated, nothing inside of tank but the stand pipe, gives no trouble, is cheaper, infringes no patents. Can as much be said for others?

THAT'S ALL

A Few of Our Specialties:

"I X L" Sewage Ejectors. Cellar Drainers. Water Lifts. Water Systems. Anti-Freezing Closets. Belt or Electric Driven Air Compressors. Beer Pumps. Factory or Mill Closets. Seat Action Closets High and Low Down. Pull Combinations High and Low Down. Automatic Syphon Tanks 1¼ to 2½ Syphon. Urinal Sprays. Compound Air and Water Regulators. High Tank Anti-Freezing Combinations. Air and Water Regulators. Hopper Valves (Spring or Weight). Pitless Hopper Valves. Compound Lever Ball Cocks. Valve Rests. Air Chambers.

We guarantee them in every respect. Send for catalogue.

"I X L" PUMP & MANUFACTURING CO.

Patentees and Makers

957=59-61 N. Ninth St., and 958=60=62 N. Darien St.

PHILADELPHIA, PA.

system—and that's why we made this sketch.

Notice the waste and vent lines to the right and the connection of overflow to the waste. There is no trap, of course, on the ½ or ¾ inch overflow pipe, and we get

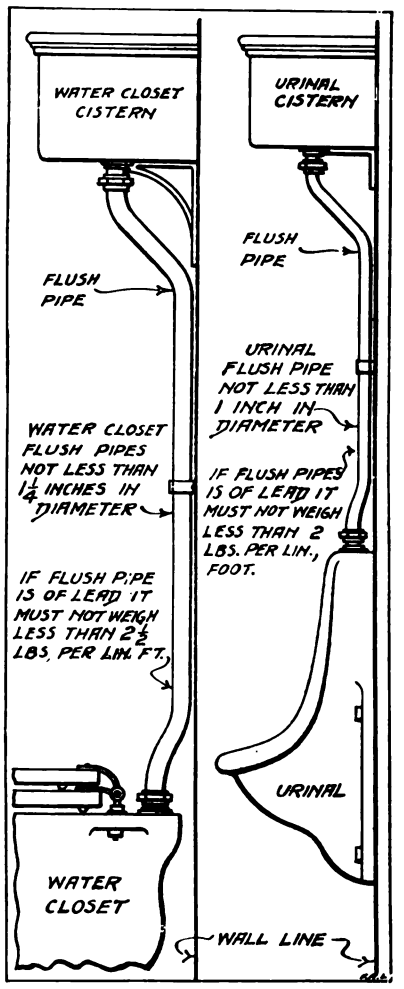

WATER CLOSET CISTERN
URINAL CISTERN
FLUSH PIPE
FLUSH PIPE
URINAL FLUSH PIPE NOT LESS THAN 1 INCH IN DIAMETER
WATER CLOSET FLUSH PIPES NOT LESS THAN 1¼ INCHES IN DIAMETER
IF FLUSH PIPES IS OF LEAD IT MUST NOT WEIGH LESS THAN 2 LBS. PER LIN., FOOT.
IF FLUSH PIPE IS OF LEAD IT MUST NOT WEIGH LESS THAN 2½ LBS. PER LIN. FT.,
URINAL
WATER CLOSET
WALL LINE

PLATE 142—ILLUSTRATING RULE 141.

an almost continual inrush of sewer gas from the main waste line. This foul gas permeates the entire toilet room and also a good part of the building, and anyone not affected with "nasal sense" would soon detect this very inferior overflow connection.

Rule 139. Iron water-closet and urinal cisterns and automatic water-closet and urinal cisterns are prohibited, unless approved by the Superintendent of Buildings.

We show two illustrations illustrating this Rule 139 (Plates 140 and 141) and shall consider the latter first.

Plate 141 represents an iron cistern which is also automatic in action—that is, the valve is so arranged that the battery of urinals directly under iron tank is flushed every little while, whether the urinals are used or not. They work all night, holidays and Sundays, and the water wasted in this way might—yes, should be—put to better advantage. At this period is where a really automatic flushing urinal should have cognizance, a urinal that begins to flush the moment the user takes possession of it without pulling chains, pushing buttons or standing on foot pieces or platforms, which are supposed to work complicated levers to start the flush and create syphons.

But the last word in perfect automatic flushing urinals is no doubt soon to take the place of the old unreliable kind, which are really "poison stalls" soon after installation, for the reason of not getting a proper flush every time they are used on account of the users neglecting to start the mechanism which causes the flush—when they do work.

Plate 140, also coming under this Rule 139, is a cut of an automatic water-closet. Before these can be installed they must have the sanction of the superintendent of buildings.

There is little doubt that these automatic water-closets of various kinds are indeed far superior to some others, especially in public buildings, as it is only in our homes that proper care and flushing is extended to the ordinary or non-automatic water-closet. In public buildings the occupants very frequently neglect, whether from laziness or other "infirmities," to properly flush the closets, and in these instances an automatic water-closet is to be depended upon—if it be a good one—as it works or flushes the moment the seat is moved. As an example of a good clean toilet wherein automatic water-closets are installed, we could name a certain Manhattan hotel, and though an old one, its toilet is far superior, from the "cleanliness standpoint," to numerous new

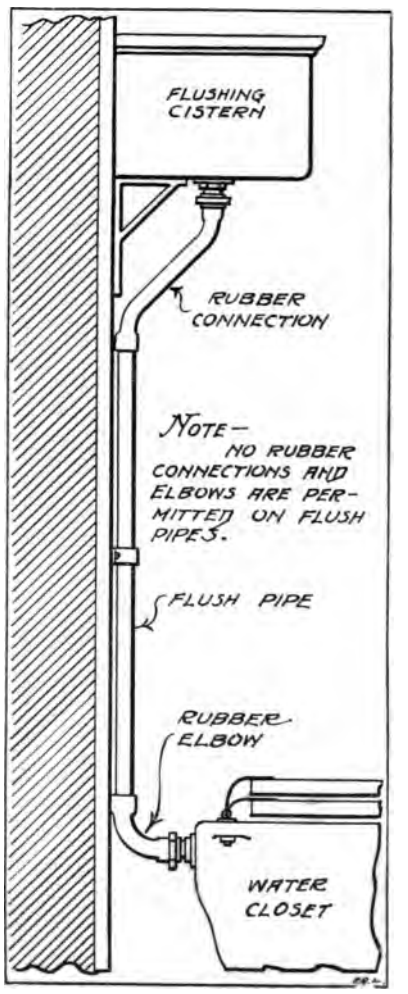


PLATE 143—ILLUSTRATING RULE 142.

and "model" hotels and office buildings of present-day construction.

Rule 140. The copper lining of water-closet and urinal cisterns must not be lighter than 10-ounce copper.

By referring to Plate 139, showing cistern overflows, we show at the bottom of this sketch an interior view of a tank or cistern, disclosing the copper lining.

This copper lining must be at least of 10-ounce copper, and a heavier grade is to be desired.

Rule 141. Water-closet flush pipes must be not less than 1¼ inches and urinal flush pipes one inch in diameter, and if of lead must not weigh less than 2½ pound and two pounds per linear foot. Flush couplings must be of full size of the pipe.

Plate 142 shows two illustrations, the one on the left the flushing arrangement of a water-closet and on the right that of a urinal. Flush pipes are generally of brass, nickel-plated, and in cheap work or alterations sometimes of lead.

The flush pipe to water-closet must not be less than 1¼ inches, as indicated, and to urinals one inch, as also indicated. If the flush pipe be of lead, for water-closets use lead pipe not less than 2½ pounds and for urinals not less than two pounds per running or linear foot.

Rule 142. Rubber connections and elbows are not permitted on flush pipes.

Plate 143 is an illustration of a flushing cistern, flush pipe and water-closet. "The idea is alright, but the execution is bad," as far as the top and bottom connections of the flush pipe are concerned. Notice that these connections are of rubber, simply "stretched" and slipped over the straight piece of flush pipe. "Most unsanitary" are the words to use here. These connections are prohibited, and it is well they are, for their existence is of short duration and at any time liable to break or slip from the pipe. In some rubber connections or "fittings" the composition is such that there is about 99 per cent. rags and 1 per cent. near-rubber, and frequently they become porous before connected; and it is no wonder, when we are informed of the fact that a good grade of Para rubber is $4 per pound.

Two Prominent Firms Consolidate.

THE Pierce, Butler & Pierce Mfg. Co., of Syracuse, recently purchased the controlling interest in the Kellogg-Mackay Co., of Chicago, Ill., the latter company for the past 15 years having been the western representative for the sale of the boilers of the Pierce, Butler & Pierce Mfg. Co.

The officers of the new company are: President, Wm. K. Pierce; first vice-president, C. V. Kellogg; second vice-president, W. F. Woodruff; secretary, P. M. Beecher; assistant secretary, E. W. Payne; treasurer, F. W. Fix, and assistant treasurer, H. B. Detlor.

This acquisition by the Pierce, Butler & Pierce Mfg. Co., while in no way affecting the established policy of the business, will assist the new company materially in advancing its interests throughout the west on a most conservative basis. The Pierce, Butler & Pierce Mfg. Co. will continue to manufacture the boilers sold by the Kellogg-Mackay Co., as heretofore, and plans are under contemplation for vastly improving the conditions of the new company in the near future.

"PREMIER"

PECK'S
Bath Waste and Overflow
FOR
Porcelain or Enamelled Iron BASE Tub

Peck's "PREMIER" Waste is the only practical waste (except the old lift wastes) for use on *Base* Tubs. It can, of course, be used on any other tub, and can be used on *through rim* tubs (narrow as well as wide rim). The *overflow has cleanout plug.*

Handles can be made to match handles on valves of fixtures.

The Peck Bros. & Company

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For Price on These Hangers and Other Specialties

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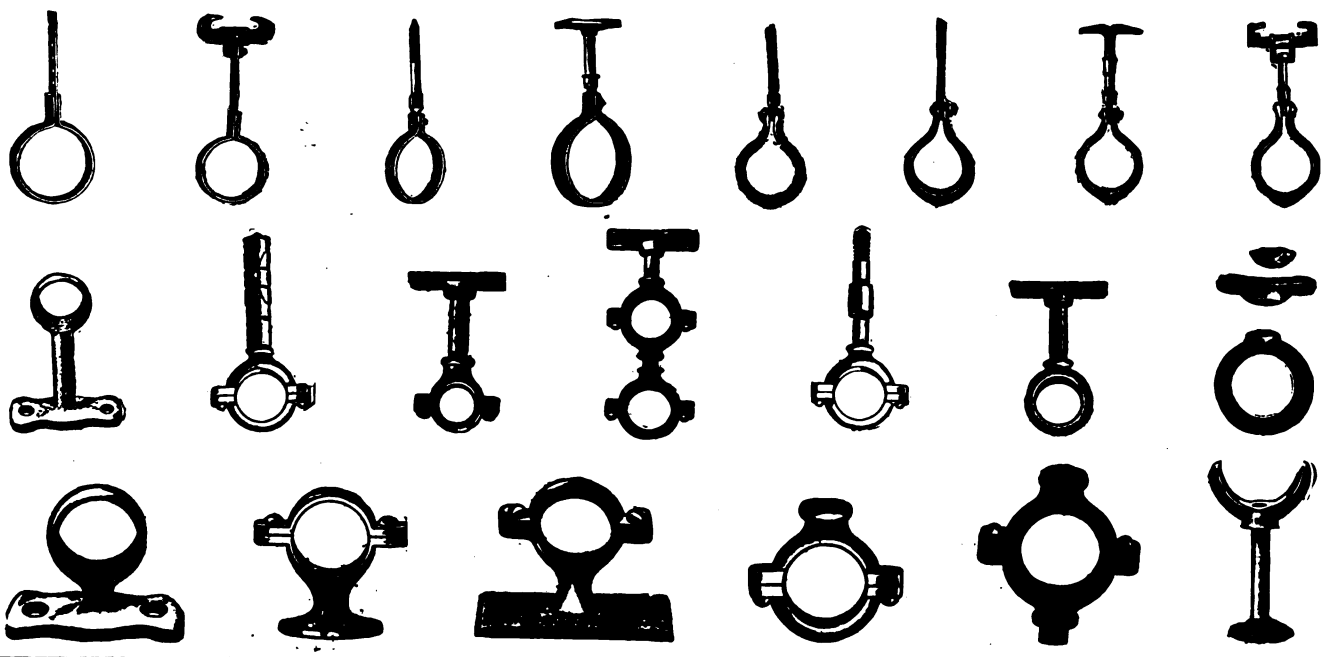

COST ACCOUNTING FOR PLUMBERS' JOB ORDER BOOK.

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitter.

ORDERS for jobbing or contract work in a plumbing shop should be given a job order number, if they are to be properly traced. The workmen should charge all their time and material by the number of the job. This is easily done by simply numbering the jobs consecutively as they come in. In some shops the contracts are given a separate set of numbers from the jobbing work; the contracts may be numbered from to 1 to 499, and the jobbing and extra work from 500 up.

In Fig. 5 is shown a sample form of Job Order Book.

Date.	Job No.	Customers' Order No.	Owner's Name.	Tenant.	Location.	Nature of Work.	When Billed
1/6/13	1	No. 438	Wm. Black.	Geo. Brown.	137 N. 7th St.	Repair water closet.	1/7/13
1/6/13	2		John Green.		148 Tioga St.	Rewasher spigots.	1/9/13
1/7/13	3		Geo. Allen.	H. Martin.	219 Brown St.	Repair gas leak.	1/8/13
1/8/13	4		Frank Smith.	Wm. Jones.	419 Market St.	Connect gas stove.	1/12/13
	5						
	6						

FIG. 5. JOB ORDER BOOK.

JOB TICKETS AND TIME SHEETS.

There is no question but what the jobbing work is the main stay of the plumbing business, and for that reason it should be performed and accounted for in a manner worthy of its importance. While it is absolutely necessary to know how every workman spends his time on jobbing and contract work, it is doubly necessary to know how the time is spent on the jobbing work. The practice of charging a fixed rate per hour for the time spent on jobbing work obviates all the work of adjusting percentages, of general overhead expense on this class of work.

It was the custom in the past, in some of the older plumbing shops, to use weekly diaries or memorandum books, or weekly time sheets for the workmen to enter up their time, and the material used on each job during the week, and at the end of the week these diaries, or weekly time sheets were turned into the office, so that the work could be charged up to the customer's account, and the workmen's time made up in the payroll book. But observations extending over a period of years regarding the actual practice in the average plumbing shop, have emphasized the fact that, where weekly diaries or weekly time sheets alone were used, it is the custom among workmen to wait until the last day or afternoon, prior to turning in their weekly diaries or time sheets to the office, and then to enter up the whole week's charges, from memory, for time and material used on the various jobs during the week. This is an old time-honored custom, but is not now followed in the more enterprising shops. In them the plumber is given a job ticket for each job, as in Fig. 6.

Order No. 4.
Owner—Frank Smith.
Location—419 Market St.
Given to Plumber—Geo. Boone.

.....

Order No. 4. JOB TICKET. Work—Jobbing.

THOMAS F. MARTIN,
Plumber,
523 Greenwood Avenue.
Jenkintown, Pa., Jan. 12, 1913.

Owner—Frank Smith. Address.....
Tenant—Wm. Jones. Address—419 Market St.

Work Ordered—Connect up gas stove.

Description of Work Done—Connecting up gas stove and rewashering spigots.

MATERIAL.

40 ft. ¾-in. gas pipe		$3.20
1 1¼-in. x ¾-in. malL tee		.15
5 ¾-in mall. ells		.25
1 1¼-in. nipple		.10
6 ¾-in. nipples		.30
1 ¾-in. stop cock		.75
1 ¾-in. brass union		.50
2 comp. bibb washers		.10
Expense—Fares		.20
Plumber—Geo. Boone. Time .. Days	7 Hours.	4.90
Helper—Harry Jones. Time .. Days	7 Hours.	1.75
Laborer..... Time .. Days	.. Hours.	
Laborer..... Time .. Days	.. Hours.	
Total		$12.20

State of Job at this date—Finished.
(Signed) GEO. BOONE.

Be sure you charge EXACT TIME and all MATERIAL used on job.

This ticket must be kept accurately and returned to the office every night in good condition.

Write list of all material and tools left on job on back of this ticket.

FIG. 6.—PLUMBERS' COUPON JOB TICKET.

After an order is entered in the Job Order Book, the job order number, the name of the owner and location of the job should be entered on both the coupon at top and also on the job ticket. Where it is a tenant house, the name of the tenant should also be entered on the job ticket, to avoid error of doing work at the wrong property. A copy of the order received should be entered after "Work Ordered." These job tickets and be punched at top of coupon and kept on the ordinary board file until wanted.

When a workman is sent out on a job, the job ticket is detached from the coupon and given to the workman. The name of the workman to whom the job ticket is given is entered on the coupon. These coupons are retained in numerical order on the file until the job tickets are returned by the workmen, so that no job ticket can be lost without being missed. Some plumbers instead of using an order book as soon as an order is received, they enter it on these Coupon Job Tickets, and use the coupons as an order book. When a job is completed and the ticket is returned to the office, the coupon and job ticket is returned to the office, the coupon and job ticket can be filed away for future reference.

A separate job ticket should be made out for each job, and a full description of the work done, all material and expense used, and the time spent on the job, should be entered on the job ticket by the plumber, immediately upon completion of the work. In the smaller shops where the employer knows personally whether each man works the full week or not, these job tickets are turned in each night, whether the job is completed or not, and a new job ticket is given to the plumber in the morning. In this case it should be stated on the job ticket whether the job is finished or unfinished.

But in some of the larger shops the plumber keeps the job ticket until the job is completed, except on long continued jobs or contracts, when the job is turned in at the end of each week with an account of the time and material used on the job that week. In the larger plumbing shops where this latter method is adopted, every workman, plumber, apprentice boy, helper or laborer, is provided in addition with a weekly time sheet, on which he enters his whole time for the week, whether spent on contract or jobbing work, and these weekly time sheets are turned into the office at the end of the week. After making up the payroll from these time sheets the time on these weekly time sheets are checked up with the time turned in on the daily job tickets by the plumbers during the week.

In Fig. 7 is shown a sample of the weekly time sheets used in some of the larger shops.

The advantages of using the job tickets for charging up the time and material daily on jobbing work, and using the weekly time sheets for making up the payroll are many. When work is fully accounted for each day, there is less likelihood of forgotten items; the owner of the business will have a constant line on all the work that is going on while everything is fresh in the memory. With these daily job tickets he will know each morning or each night just what has been done by each

Where Quality Rules

German Silver and Copper

Oval
Square and
Recess
Pantry Sinks
AND
Drain Boards

Get our prices.

Alan R. H. Burk Mfg. Co.

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BRASS WORKS

Manufacturers of all kinds of

Regular and Special

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and Floor Drains

KOKOMO, IND.

EVERY "NACO" BOILER SOLD

Means a Satisfied Customer

"NACO" Boilers are Sold at the Same Prices as Charged for Others

To Architects and Plumbers Everywhere

The *Jobbers* of Plumbing Goods of the United States desired a *Standard* of Weights and Capacities of "Galvanized Range Boilers." The National Committee of the Confederated Supply Association thereupon appointed a committee on Standards. This committee compiled a standard for Range Boilers. The Standard stipulates that all Galvanized Range Boilers must be stamped with their actual capacity, and the materials used in the boilers must be of a specified thickness. On all such boilers the "Naco" label may be used.

We Manufacture
"Naco" Galvanized Range Boilers

L. O. KOVEN & BRO.

50 Cliff Street, New York

WEEKLY TIME SHEET

HERMAN GOLDNER

425 W. Lehigh Avenue

Week Ending.....191..

DAY	DATE	HOURS	JOB NO.	NAME OF FIRM AND LOCATION
Sat.				
Mon.				
Tues.				
Wed.				
Thur.				
Fri.				
Sun.				

Name of Employe.....

Remarks .....

.....

FIG. 7—SAMPLE OF WEEKLY TIME SHEET.

workman for the day. And, if desired, the bill for any particular job can be made out as soon as the job is completed. The job tickets can be entered up every day, and the office work kept up to date. These job tickets can also be used to great advantage for getting the cost of time and materials on separate portions or sections of a contract job. Another advantage is that the job tickets can be filed away alphabetically for reference, all the job tickets for each customer filed together. If any complaint is made, or any particular job for a certain customer has to be looked up, the job ticket can easily be located, and it can be seen at a glance what work was done, and the names of the workmen who were engaged on the job.

Another valuable advantage of these daily job tickets is that if the description of work done, the material, expense and the time spent on the job are entered on the job ticket upon the day on which the work was done, and signed by the workman in charge, you have a written instrument, which will be accepted by any court in the land, in case of a dispute when even your books might not be considered in evidence, as they are not the original books of entry, while your job tickets signed at the time by the workman who performed the work are considered as your book of original entry and cannot be disputed. Hence you can see the value of the daily job tickets. Take good care of them.

Best Policy.

TO advertise goodness and not badness is a right object for every man or woman or child, whether directly connected with a printing press or not, says the *Christian Science Monitor*. The words we speak advertise one or the other. The choice may be made every time we open our mouths. "Advertising Goodness," then, is the appropriate title of a sketch in *Good Housekeeping Magazine* which is written with the avowed intention of telling what the writer knows about the extent to which the Golden Rule is nowadays practised in the business world.

The writer starts off with saying that he wants to be good and knows that the world wants to be good. He has no way of helping the world to be good in crowds, but he can begin with himself and make all that he does and says and is really good. He can also take grateful cognizance of all the goodness he finds in others.

So he proceeds to tell an amazing story of his plumber. Called on to make some changes in the pipes of the house and street connections, the plumber agreed to do the work for a certain sum. Next day he came to tell the house owner that what was needed was to remedy a defect in the city's piping, that the city would do this without cost to the householder, and thus the plumber gravely bowed himself out of the job. The writer does not remark on the sad fact that such a piece of simple honesty should be thought worthy of comment. He is only too glad to have such a bit of unselfish honor to proclaim to the world.

Beloit Plumbers' Association Asks Ordinance to Do Away with Slipshod Work.

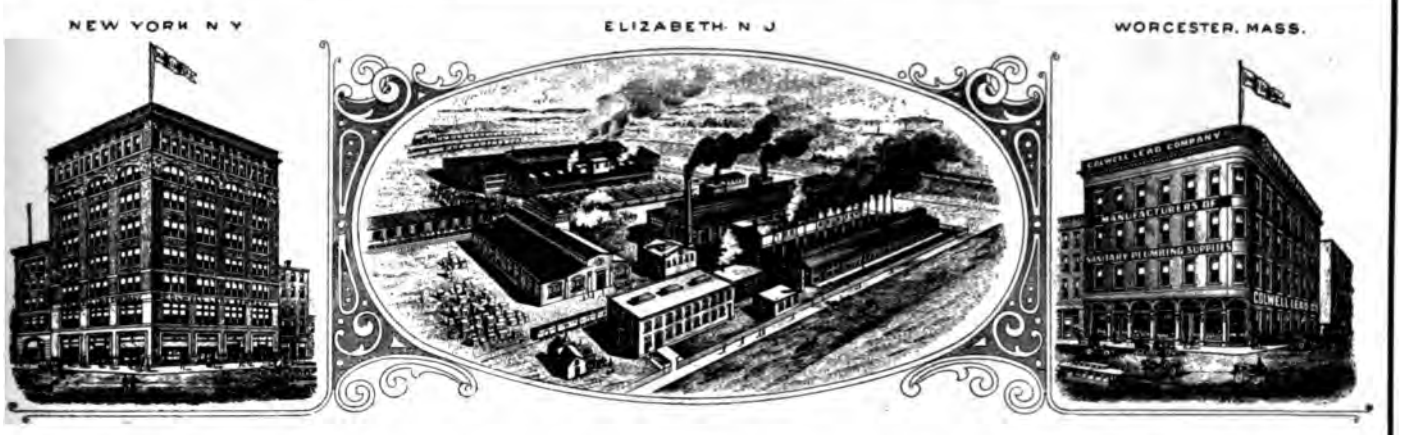
THE City Council of Beloit, Wis., will soon be asked by the plumbers' association of that city to pass an ordinance providing for a board of plumbing examiners, the duties of the board being to examine the plumbing of the city, in accordance with a proposed State law now before the Legislature at Madison.

Rockford and Belvidere are two cities in that vicinity that have ordinances in effect at the present time, and Beloit plumbers are desirous of having the ordinance passed for the benefit of the public safety. If the law passes the Legislature and the city adopts an ordinance and appoints a board of plumbing examiners, it will be that body's duty to examine all the plumbing which needs attention, with the result that eventually slipshod plumbing will be done away with.

Following is an extract from the bill now before the Legislature:

"There shall be in every city of first, second or third class having waterworks or sewerage a board of plumbing examiners, consisting of a member of the board of health, one master plumber and one journeyman plumber, each of which said plumbers shall have received a license from the State Board of Plumbing Examiners and shall have had at least 10 years' practical experience; which board shall be appointed by the Mayor of the city and confirmed by a majority vote of the City Council or governing body, who shall also fix the compensation for said board, which compensation shall be paid out of the office of the city treasurer."

The Lamneck Co., of Columbus, O., has been awarded the heating contracts for the McArthur High School and the German M. E. Church building at Marion. The Columbus Heating & Ventilating Co. was awarded the contract for the heating of the Morrow school building.



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The Design of Indirect Heating Systems with Respect to Maximum Economy and Operation.

By FRANK T. BUSEY and WILLIS H. CARRIER.

Read at the Annual Meeting of the American Society of Heating and Ventilating Engineers.

T[illegible] loss of pressure [illegible] resistance [illegible] for heat [illegible] purposes [illegible] ... those engaged [illegible] installation [illegible] have a clear [illegible]

[illegible] cost of power, as well as an allowance on [illegible] the installation to care for interest and depreciation. It may be shown [illegible] according to present practise, the velocities [illegible] are entirely too high for economical results.

[illegible] the two power requirements to be met in the fan of a fan-heating system one due to maintaining the required velocity head and the other depending on the loss in pressure due to the frictional resistance of the system. The first item is fixed when the velocities through the system are decided upon. The second item is requirement is due to two sources, the resistance through the heater and the friction through the piping and ducts of the distributing system. These are two separate sources of [illegible] one and either one may be [illegible] of the other, and changes [illegible] in the one do not necessarily affect the other. [illegible] as it is a constant [illegible] ... the values as the [illegible] ... [illegible] ... [illegible] ...

annual cost of the heater; that is, annual interest and depreciation allowance based on initial costs. This very interesting relationship is clearly proved in Appendix No. 1, which will be shown next issue.

We may also see that the velocity through the clear area for the maximum economy is independent of the depth required, temperature rise or the steam pressure. That is, if we increase the depth of the heater to give the greater temperature rise it is evident that the cost of power and the cost of the heater are each increased in exactly the same proportion, since they both increase exactly in proportion to the increase in the depth of the heater. Hence the value of V_m remains unchanged.

PRACTICAL APPLICATION.

These relationships of surface, velocity and power cost, due to the resistance, may best be shown by means of a specific example, to which the accompanying curves apply. Any other assumed conditions may be treated in the same manner.

As frequent reference will be made to the cost of power per *horsepower year* at the fan, due to forcing the air through the heater against the frictional resistance, Fig. 1 is given to show the relation between this unit and the common one of cost per kilowatt hour. Across the lower edge of the diagram are laid out the periods of operation in months of 12 hours a day, and across the top months of 24 hours a day. Any combination of operating periods may be found on these scales. The diagonal lines represent the cost of power in cents per kilowatt hour and the left edge the corresponding cost per horsepower year.

Thus, a plant operating four months a year and 12 hours a day, with power costing 2.5 cents per kilowatt hour, will be paying $47.50 a year per horsepower. If power costs 1 cent per kilowatt hour, the horsepower will cost $20 a year. As already shown, the cost per year due to the frictional resistance of the heater will be

$$C_r = (0.000405\ p\ Q) \ m = H \times m$$

where m is the cost per horsepower year.

Take for example a case where 30,000 cubic feet per minute is to be warmed from zero to 103 degrees by means of a Buffalo pipe coil heater. Assuming for convenience a velocity of 1,000 feet per minute through the clear area, we will require a heater five sections or 20 rows of pipe deep, with 184.3 square feet of surface per section. The loss of pressure due to the frictional resistance will be 0.48 inches. Then

$$Q_o = 30000$$
$$V_o = 1000$$
$$S_o = 184.3 \times 5 = 921.5 \text{ (sq. ft.)}$$
$$p = 0.48 \text{ (in.)}$$

Operating four months a year at 12 hours a day, with power costing 2 cents per kilowatt hour, the yearly cost of power will be $40 per horsepower. Then the horsepower required will be

$$H = 3000 \times 0.000405 \times 0.48 = 5.83$$

and

$$C_{po} = 5.83 \times_{i} \$40 = \$233 \text{ a year}$$

Allowing 15 per cent. on the cost of the installed heater for interest and depreciation on a cost of 35 cents per square foot, we will have

$$C_{so} = 921.5 \times \$0.0525 = \$48.4 \text{ a year}$$

Then the maximum economical velocity for these conditions will be given by equation (20)

$$V_m = V_o \times 0.66 \left(\frac{C_{so}}{C_{po}}\right)^{1/3}$$

$$= 1000 \times 0.66 \times 5925 = 391 \text{ ft. per min.}$$

Substituting the various costs per horsepower year in the above formula, we may determine the corresponding maximum economical velocity for each case, and these values plotted, as in Fig. 2. From this curve may be determined V_m for any intermediate power cost.

From Fig. 2 it may be seen that if a return of 15 per cent. is desired on the investment, in order to use a velocity of 1,000 feet per minute, the power should not cost more than $2.50 per horsepower year. This would only be the case where the fan was driven by a steam engine and the exhaust steam used in the heating coils, practically using the engine for a valve.

Fig. 3 shows the same relations cost to velocity when 25 per c lowed for interest and depreciat curve is similar to that in Fig. 2, the greater velocity allowable condition.

(To be continued.)

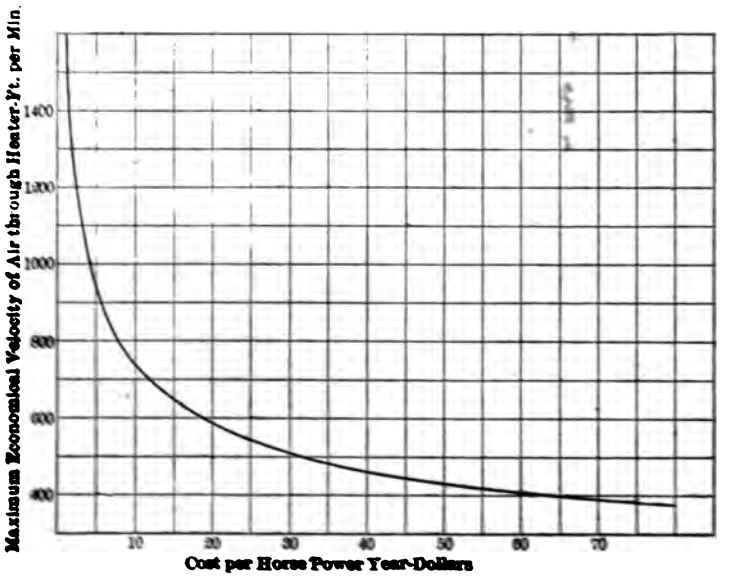

FIG 3—MAXIMUM ECONOMICAL VELOCITY FOR DIFFERENT COSTS OF POWER, ALLOWING 25 PER CENT. ON COST OF HEATER FOR INTEREST AND DEPRECIATION.

To All Master Steam a Water Fitters of United States.

Gentlemen:

THE twenty-fifth annual con the National Association Steam and Hot Water F be held at Niagara Falls, N. Y., 26, 1913, with headquarters at In Hotel.

There are without doubt nume ter steam fitters in this country to consider their own welfare to of becoming members of their t ciations, and thereby exhibit a spirit which would directly and sooner or later, be of material themselves and to the trade at la

An invitation to join this asso been extended to all master ste not now members, and it is repea time. It must be borne in mind, that only such as can demonstrate are regularly established in bus worthy of recognition as master hot water fitters are eligible to ship in the national association.

We will state that the forthco vention is not a convention for only, and the sessions of the will be open to the trade at larg

The convention's headquarters International Hotel, where all me be held.

All master steam fitters who attend the national convention heartily welcomed.

Yours very truly,

BOARD OF DIRECT

WILLIAM H. (

Ch

HENRY B. GOMBERS,

Secretary.

Plumbers' Wives Give Surprise.

WITH all arrangements m pleasant stag dinner at eral Spring Hotel, Rea on the evening of March 27, 30 m the Master Plumbers' Associati given the surprise of their lives w entered the dining room upon di that an equal number of wom awaiting their arrival.

This is the first affair of its k given by the association, and it w annual event. The members pla banquet not intending to invite th and sweethearts. The women hea it and thought they would pull one the men, and they did.

Edward VanDenberg, president association, acted as toastmaster, sponses were made by all the present.

You're Paying Too Much for Cement!

You are paying as much per pound for the water or oil it contains as you are for the cement. Why not mix **H-O Pipe Joint Cement** yourself and save the difference? One pound of H-O goes as far as four pounds of ordinary cement, yet costs no more per pound.

Another advantage in mixing cement yourself as used, is that it does not dry out and become worthless.

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not only costs less than others, but is also better. It expands after a joint is made up, thus making a tighter joint than any other cement. It never gets hard like red or white lead and other preparations, or turns into powder and loses its adhesiveness. Joints made with it can always be easily uncoupled. Is absolutely non-poisonous, and will not stain marble or tile.

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Edward VanDenberg, president of the association, acted as toastmaster, and responses were made by all the members present.

Flood Fund for Ohio Plumbers.

A LETTER is being sent out to all local Master Plumbers' Associations by National President Frank J. Fee, calling attention to the fact that the property of many of the members in the flooded district in Ohio has been wiped out completely and suggesting that contributions would be most welcome. All remittances are to be sent to the national secretary, Charles Murphy, New York City, and will then be transmitted to the proper authorities.

Commissioner Dwyer Resigns.

CORNELIUS DWYER, commissioner of public works of Amsterdam, N. Y., has tendered to Mayor Dealy his resignation, to take effect April 1. Commissioner Dwyer gives as his reason for resigning lack of time to look after his large plumbing business. Mr. Dwyer was reluctant to accept the appointment when Mayor Dealy offered it to him a little over a year ago, on account of the large amount of work involved in reorganizing the whole city government as provided for in the new charter, and placing of water rents, the sewers and the streets all under the head of public works department and making the commissioner responsible for everything done in the line of public works. At the same time, Mr. Dwyer's contracting plumbing business was assuming larger proportions all the time, and it was at considerable sacrifice to his own business that he undertook the work of starting the public works department under the new charter. Now that the most important changes have been effected, Mr. Dwyer feels that his duty is to take care of his own business, and for this reason has tendered his resignation.

Eastern Trade Golf Association Elects Officers.

THE annual meeting of the Eastern Trade Golf Association was held on Wednesday, April 9, at the Machinery Club, 50 Church St., New York. Among those present were E. S. Aitkin, L. G. Allen, A. S. Armagnac, F. K. Chew, M. E. Conran, W. M. Cosgrove, J. A. Donnelly, L. E. Eden, B. J. Garfield, W. T. Gilmour, Jos. Graham, Chas. C. Hale, W. W. Hubbard, R. B. Hunt, T. H. Johnson, W. G. Le Compte, W. C. Matlack, W. J. Marshall, G. W. Pierpont, Stephen Roberts, G. G. Schmidt, G. E. Sly, H. V. Sturges and H. R. Watson.

Officers were elected as follows: President, E. C. Molby; vice-president, W. C. Matlock; secretary-treasurer, A. S. Armagnac; captain, J. Barton Garfield; board of directors, G. M. Scott, W. E. Cosgrove, C. S. Prizer, E. C. Molby and E. C. Aitkin.

An invitation was received through E. C. Aitkin to hold the Spring tournament at the Country Club, Trenton, N. J., and Thursday, May 15, was the date decided upon.

Dates of Coming Conventions.

Oklahoma State Association of Master Plumbers, annual convention, Sulphur, Okla., May 12, 13 and 14.

Connecticut State Association of Master Plumbers, annual convention, Hartford, Conn., May 14.

American Society of Inspectors of Plumbing and Sanitary Engineers, annual meeting, Hotel Seelbach, Louisville, Ky., May 20 and 22.

Colorado State Association of Master Plumbers, annual convention, Antlers Hotel, Colorado Springs, Colo., June 5, 6 and 7.

New Jersey State Association of Master Plumbers, annual convention, Camden, N. J., June 16.

National Association of Master Plumbers, annual convention, Bellevue-Stratford Hotel, Philadelphia, Pa., June 17, 18 and 19.

Master Steam and Hot Water Fitters' Association, annual convention, June 23, 24, 25 and 26, Niagara Falls, N. Y.

New Owners of the Hartkopf Plumbing Shop.

W. H. CURTIS and Ralph Beal have purchased the Hartkopf plumbing shop at Caldwell, Idaho, and will conduct the business as heretofore. These gentlemen are well known and have both worked in this shop for some time. Mr. Beal's time being taken up largely by his duties as Land Commissioner, Mr. Curtis will have active charge of the business.

Mr. Curtis is well known in the business, coming here about six years ago, his first work was on the roof of the court house.

MERCHANT PLUMBER AND FITTER
DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

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Merchant Plumber and Fitter a National Trade Publication.

Upon several occasions, more particularly following the visits of advertising solicitors for other publications in the trade, we have been asked by our advertisers and prospects if our circulation was not confined to New York City—in short, "Is yours not a local trade paper?" Each of our solicitors is prepared with circulation statements, verified by the secretary of the company and properly attested, to show that the MERCHANT PLUMBER AND FITTER is a national proposition in every respect. We are proud indeed of having the largest trade-paper circulation in the most populous territory of the United States, *i. e.*, Greater New York. In this section, where approximately five millions of persons are having their requirements in the plumbing, heating and kindred lines catered to by the cream of the profession, we have a vast majority of the quality plumbers and fitters as subscribers. Along the Atlantic Coast we have a splendid circulation, as is also the case in the central, middle west and Pacific Coast States and territories. Incidentally, our paper is distributed in Great Britain, Germany and the Argentine Confederation to a limited number. We reach from the Gulf of Mexico to Alaska in our distribution of copies. Our circulation lists are showing a healthy growth. Our agents in the Lake States only last week sent in to us hundreds of new subscribers, and in other sections of the country there is a continued and progressive activity noticeable in connection with the efforts of our corps of subscription men. In actual paid subscribers we honestly assert that our subscription list is second to none in the field. Inormation in verification of the above statements will be cheerfully given any legitimate inquirer upon application to our headquarters, 200 Fifth Ave., New York City.

Philadelphia to the Fore.

The writer had the pleasure of attending a meeting of the executive committee of the Philadelphia Master Plumbers' Association one day last week, at which there were in attendance a dozen prominent members of the Philadelphia organization. The meeting was held in the office of National Treasurer William McCoach. Each Tuesday afternoon the chairman of the various committees in connection with the 31st annual meeting of the National Association of Master Plumbers meet and discuss ways and means to assure a banner convention from every angle. Preparations for the army of trade personages which will advance upon the City of Brotherly Love two months hence are being hastened to completion, so that when the happy date arrives perfected details will prove the efficiency and ability of the Philadelphians to cope with what surely will be the greatest annual meeting in the history of the association. In point of attendance it will easily surpass any hitherto held. The business sessions will be held in the Bellevue-Stratford Hotel, upon the first floor. Here also will be seen the various trade exhibits. Spaces have been secured by the prominent manufacturing concerns of the country, and in every department we can safely promise a convention de luxe. The entertainment features show an alluring list. Prepare your affairs so that you may arrange to attend with members of your family. The Philadelphian spirit of hospitality, world-renowned, will make the oncoming meeting of the craft a thing of beauty and a joy forever. Don't miss it.

America's First Turkish Bath Reaches an End.

While there are many Turkish baths in the country, in 1863 there was no such bath in the United States until it was started by Dr. Charles Henry Shepard in 81 Columbia Heights, Brooklyn, N. Y. Dr. Shepard, since dead, brought the idea here from Europe and the Orient, where he traveled after his graduation in medicine in New York City. His idea extended widely, as all well know. Dr. Shepard's widow has continued the establishment since his decease. The place was sold at auction on Thursday, March 27, subject to occupation till April 19. A roster of the patrons of this famous establishment would reveal notable names. Among them would be Storrs, Beecher, Putnam, Cheever, Thompson and Dr. Lyman Abbott (still living) among clergymen, with Sage, A. A. Low, 1st, Claflin and Tappan among merchants, Emerson, Lowell, Garrison, Phillips and Oliver Johnson among abolitionists, and many other men on high planes of thought and action. The place has been instinct with liberty in all the years of its existence. Its traditions are all for freedom, union and straightforward thinking. Its surrender to transforming conditions does not deprive the memory of its founder, either here or in Europe, of the distinction of founding and introducing its benign specialty to the people of North America, who adopted and multiplied it on a scale unknown abroad.

Secretary Redfield's Address.

We are pleased to publish on page 290 of this issue the address of the Hon. William C. Redfield, Secretary of Commerce, before the graduating classes of the New York Trade Schools on April 2. The Secretary made a strong appeal to the young men who were about to launch their barks on the turbulent waters of a business career. He welcomed the young men into the great world of creators and said that if they were devoted to their duties the world would be better and the happiness of the world the greater because of their labor in it.

Last Respects Paid to Former National President T. A. Hill.

SOME half-hundred friends and mourners journeyed to Mount Hope Cemetery, New York, upon the afternoon of Saturday, March 29, to attend the interment of the remains of our esteemed former associate and friend, T. A. Hill, whose death occurred during the Christmas season three months ago.

Mrs. T. A. Hill, with Miss Anna Hill, Masters Harold, Alfred and William Hill, motored to the cemetery, while the other attendants came out on the 2.20 P. M. train over the Putnam division. At half-past three Dr. Mackaye, of the North Presbyterian Church, read the burial service. The casket was laid in the grave, which is upon the side of a hill and adjoins the plot of the 71st Regiment, N. Y. S. N. G., of which the deceased was an honored member.

A dozen beautiful floral pieces were laid upon the grave by the New York City

Plumbers' Association and various

bers of the association in attendance President John J. Hannegan, T. J. y, E. A. Jackson, Philip Brady, Will- ung, George H. Creasy, James Smith fe, Philip Eich, B. A. Buge, Thomas imins, J. P. Knight, James McCul- id Executive Clerk Alex. J. Brown. rs who attended the interment were George Leonard, Miss Sarah Leonard, Mrs. George Roehm, Miss Kate Ettlinger, Mr. and Mrs. Wm. R. Hill and son, Mrs. Samuel Wilson, Joseph Markey, John McConologue, John Beiswanger, master Crescent Lodge No. 402, F. & A. M., and wife, Wm. J. Beamish, secretary of the aforesaid Masonic lodge; Miss Kate Slattery, the Misses Hall, Mrs. Boynton, Miss Jennie Smith, Andrew Smith and W. G. McCormick.

S. MADDOCK and H. S. Maddock, Jr., pere et fils, of the Thomas ck Sons Co., Trenton, N. J., U. S. ored the Metropolis with their presne day last week. The grandfather ther, respectively, of the newest addi- the famous Maddock dynasty bore ionors with becoming dignity. Inas- as several visits were made to New lrygoods emporia in all likelihood the ng young lady referred to is to be the recipient of dainty lingerie in y.

ALTER H. CAINES, the newly elected president of the New York Plumbers' Association, has gained mself an enviable fame in the city ffalo, where he has successfully con- for many years a large and lucraneral plumbing and heating business. aines has always been an association nd the respect and admiration in he is held by his fellow craftsmen home city indicates a man of execu-

R H. CAINES, BUFFALO, N. Y., PRESINT NEW YORK STATE ASSOCIATION OF MASTER PLUMBERS.

tive ability and other desirable qualifications, with which it is necessary that a State president of the largest separate organization in the Natioal Association be endowed. In his term of office as vice-president he attended to the important duties devolving upon the incumbent of that high office with credit and distinction. We prophecy for Mr. Caines a successful and creditable term of office.

HON. EDWARD R. O'MALLEY, former New York State Attorney-General, was a visitor to Manhattan recently, when we had the pleasure of again greeting our distinguished friend. Mr. O'Malley is dear to the hearts of the master plumbers in the Empire State because of his well known sympathy with the cause of sanitation. At any important gathering of the organization, whenever available, Mr. O'Malley is sure to be an invitee.

M. A. MORRIS, of the Bullard Specialty Co., Tiffin, Ohio, in a recent communication advised us of the desolation which Tiffin underwent in the late disastrous flood. While property generally was destroyed, fortunately his plant was unmolested by the elements. We can safely inform the patrons of this popular roof flange house that deliveries will be uninterrupted. For the first several days there was a slight delay, but now that shipping affairs have assumed an almost normal condition the company is in a position to promptly fill all orders for their adjustable flange.

O. A. McINTOSH, the newly appointed plumbing inspector of Orlando, Fla., is the most successful fisherman that has cast a hook in those parts for many moons.

He tells a story which reads like romance. It goes like this:

"Many years ago a bride and groom were gliding leisurely over the waters of Lake Concord, near the northern shore. Tired of rowing, the boat was brought to the landing by the happy pair, paddling the waters of the lake with their hands. The moon had risen like a ball of fire out of the woodland beyond Ivanhoe, when it dawned upon the couple that it was time to return to their home near by.

"'Oh,' exclaimed the bride, 'I have lost my wedding ring; it must have dropped off while we were boating on the lake.' The boat was searched, but the ring was gone, and with saddened hearts they returned to their abode."

Now comes the sequel to the story. Some days ago, while Mr. McIntosh was fishing on the northern shore of Lake Concord, his bait gave out, and, thinking to procure some worms, he went down into the water's edge, dug down about one foot into the sand, pulled up a bunch of waterlilies, and, his attention being attracted to a glistening object with one of the roots grown through it, he fished out the ring of the bride that had boated on the lake in the moonlight so long ago. The ring is of medium size, 18-karat, and contains two or three imperfect initials.

GEORGE H. DRAKE, the president of the Buffalo Association of Master Plumbers, distinguished himself beyond

GEO. H. DRAKE, BUFFALO, N. Y., PRESIDENT BUFFALO MASTER PLUMBERS' ASSOCIATION.

question at the recent successful annual meeting of the New York State Association. Mr. Drake has always been an ardent and enthusiastic attaché of the association. When formerly a member of the Northwestern Association as a master plumber from Bradford, Pa., his activities were notable and effective. Since emigrating to Buffalo six years ago George has advanced to the presidency of the local association, and as such has enjoyed a successful and harmonious administration. The Misses Drake, his charming sisters, will be remembered as having graced previous Northwestern meetings with their charming presence.

Out of the Depths.

OUT of the many factories and business houses in our trade that were engulfed in the flooded districts of the Middle West we are glad to hear that a few of them suffered a comparatively small loss.

Michigan Master Plumbers Meet at Saginaw

THE twenty-first annual convention of the Michigan State Association of Master Plumbers met at Saginaw, March 18 and 19, under the most favorable auspices, the weather being perfect and the reception given the delegates by the local brethren was warm and hearty. Many of the delegates arrived the evening previous, and whiled away a few delightful hours in renewing old acquaintances and viewing the sights of the "saw mill" city.

Over 100 delegates were in their seats at the Auditorium on the morning of the 18th, when President George McCullom brought his gavel down for the opening of the convention. Seated on the platform with the president were Vice-President James O'Neil, of Kalamazoo; National State Vice-President and State Secretary Wm. A. Decker, of Grand Rapids; E. E. Scott, Saginaw, and J. A. Cimmerer, president of the Saginaw Board of Trade.

E. E. Scott, of Saginaw, presented J. A. Cimmerer, president of the Saginaw Board of Trade, who spoke of the doings of the master plumbers in the city of Saginaw. In the course of his address Mr. Cimmerer said that he felt that all present must be there especially for educational and progressive purposes concerning their trade. He urged the master plumbers to co-operate at all times for the betterment of plumbing conditions. He also stated that the plumbers of Saginaw are doing very beneficial work and seemed to be getting stronger every year. In closing Mr. Cimmerer said he regretted that so few master plumbers are members of the Board of Trade, and hoped that they would make a special effort to become a part of such an active local organization.

President McCullom responded to the speech of Mr. Cimmerer, and afterwards announced the appointment of the following committees:

Auditing—George A. Langdegend, Holland; E. W. Krueger, Muskegon; L. J. Holser, Pontiac.

Credential—N. B. Wheeler, Kalamazoo; R. J. Mercer, Traverse City; Samuel Graham, Detroit.

Resolution—E. Harrigan, Detroit; W. J. Pulte, Grand Rapids; E. V. Merrill, Saginaw.

Press—C. P. Tietze, Detroit; M. Kelley, Bay City.

Sergeant-at-Arms—W. K. T. Wright, Saginaw, and assistant, Joseph B. Lang, Grand Rapids.

Reading clerk—Otto A. Wurm, Detroit.

The greater part of the morning session was taken up with the reading of resolutions which were referred to the resolution committee. The proceedings of the afternoon session opened up with the initiation of Assistant Sergeant-at-Arms Joseph B. Lang, which created no little amusement, after which the delegates got down to business and heard the annual report of the secretary, which showed a balance of $584.24 in the treasury. The reading of the report showed that the association had passed through a successful year under many adverse circumstances. Thirty-one members were shown to have been lost by death and other causes, but against this was recorded the initiation of 40 new members, making a gain of nine members throughout the year for the association.

The question as to the organization of a State association of master steam and hot-water fitters was then broached. On motion of Secretary Decker it was decided to hold a meeting after the cessation of general business in regard to same.

The report of the credential committee showed that 118 members were present at the time of the opening session. In city representation Grand Rapids led with 33 members present; Detroit second, with 25, and Saginaw third, with 18.

The credential committee made their report as follows:

Ann Arbor—S. C. Andres.

Bay City—M. J. Kelly, O. C. Mann, R. T. Finn, F. Reviere, W. J. Wanlers, T. E. Smith, C. R. Nichols, J. F. Miller.

Gassopolis—M. L. Brown.

Detroit—Charles Braun, Samuel Graham, E. M. Harrigan, A. Hassig, William Hughes, E. H. Leonard, H. J. May, Peter F. McEuen, Benj. Oakes, J. W. Partlan, F. C. Sherwood, C. P. Tietze, Ernest Wentzel, Otto A. Wurm, William Gourlay, Jr., John J. Voris, Frank Mohr, Herman Burnaska, James Bolton, Norman Boosey, W. G. Merbach, F. A. Porth, John Pfromm, James E. Lee, Ernest Venn.

Flint—T. J. Henderson, Sr., T. J. Henderson, Jr., Lester L. Hall, George H. Holmes, Messrs. Hunter and Ross, of Finn, Hunter & Ross; George N. Larkins, Jas. A. Miller.

Grand Rapids—W. J. Pulte, president; William A. Decker, secretary; Andrew Muir, R. E. Heth, C. G. Kuennen, J. J. VanderMeer, Wm. F. McGurrin, L. H. Butler, John Boss, William Praetorius. Alternates—Frank Youngs, Steve Swart, Harry Thompson, Martin Proos, Stanley Merdizinski, Benj. Powers, Joseph Lang, P. N. Hammer.

DELEGATES ASSEMBLED AT THE TWENTY-FIRST ANNUAL CONVENTION OF THE MICHIGAN STATE ASSOCIATION OF MASTER PLUMBERS AT SAGINAW, MARCH 18 AND 19, 1913.

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Grand Rapids members attending in addition to the delegates and alternates—George Thompson, Jr., R. Peters, of Richards Plumbing & Heating Co.; Cornelius Van Rossum, Harry Birt, Charles Quain, John Hunneman, L. H. Semeyn, Frank Runnels, William Metzger, Henry Struths, T. J. Hunter, Elmer Norman, Otto Bettin, Jos. Van Rossum, H. Bouma.

Holland—George Van Landegend.

Howell—Charles G. Jewett.

Jackson—H. B. Reed, of W. J. Dowsett Co.; L. A. Nowlin.

Kalamazoo—James O'Neil, N. B. Wheleer, W. P. Rix, James Harkins, Peter De Young, James Wall, Peter Schurr, Henry Stroble, Fred Hotop.

Lansing—Edward Mack, Bert Krauss, Albert Renker.

Muskegon—James Coyne, Alfred A. Simpson, George McCullom, E. W. Krueger, William Cayo.

Pontiac—L. J. Holser.

Saginaw—J. Ahern, George Willard, Charles Cannon, E. E. Scott, J. H. Johnson, George Gartner, H. L. Taub, C. J. Martin, C. L. Bigelow, W. K. T. Wright, A. J. Leyerer, E. V. Merrill, W. A. Brown, W. C. Richter, M. Kaiser, Fred Rachuth, F. Curott, George Schrems.

Traverse City—R. C. Mercer.

The resolutions adopted by the resolution committee were then brought up for consideration by the delegates. The first concerned contract work. Those present said that they wished to place themselves on record as being opposed to the pernicious practise of altering or substituting goods after they had been specified in a contract deed. They unanimously declared that this action tends to lower the standard of the business of the master plumber. Strict adherence to this resolution was promised.

The members heartily endorsed the honest advertising law which has been drafted by the National Federation of Retail Merchants.

Secretary Decker gave a forceful address concerning the betterment of the position of retail merchants. Mr. Decker said that master plumbers are in reality retail merchants and that it was up to the delegates individually to advance the cause materially. In connection with the Sherman law Mr. Decker showed the master plumbers just where they stood, and urged them to co-operate with the National Federation of Retail Merchants, which body is working conscientiously for the progression and elevation of the retail merchant.

The question of forming a State steam fitters' organization was then taken up and by a unanimous vote it was decided to organize, a committee of five being appointed to nominate officers for the ensuing year. The following members were elected: President, George McCullom, Muskegon; vice-president, Charles Light, Saginaw; secretary-treasurer, Otto Wurm, Detroit; executive committee, George McCullom, Muskegon; Charles Light, Saginaw; Otto Wurm, Detroit; E. M. Harrigan, Detroit; Jules Zieze, Grand Rapids.

The following members gave their names for enrolment:

Ann Arbor—Samuel C. Andres.

Bay City—T. E. Smith, Ideal Plumbing Co., Mann & Askermann, Sullivan Plumbing & Heating Co., Bay City Plumbing & Heating Co.

Detroit—James W. Partland, C. P. Tietze, James R. Bolton, Ernest Wenzel, E. M. Harrigan.

Grand Rapids—Sproul & McGurrin, Richards Plumbing & Heating Co.

Kalamazoo—Fred J. Hotop, Wheeler, Blaney Co.

Muskegon—George McCullom, J. J. Howden Co., James Coyne, Alfred Simpson, Hunter & Norton, E. W. Krueger.

Saginaw—E. E. Scott & Son, Charles J. Martin, Charles W. Light, Charles L. Biglow, Charles H. Cannon.

The annual dues were fixed at $15. By common consent it was decided to affiliate with the national association, and the executive committee was commanded to appoint a representative to attend the national convention.

The morning session of the last day was called to order at 10 o'clock, and the first order of business was the report of S. H. Morgan on the last national convention at Salt Lake City. A vote of thanks was extended to Mr. Morgan.

A resolution was adopted that a certain time be set aside at the national convention for the meeting of all national State vice-presidents. A motion was also passed asking for the elimination of all entertainments during convention hours at the national convention.

A resolution requesting that a letter be sent to National President Frank J. Fee, asking for the affiliation of the national association with the National Federation of Retail Merchants, and also that he invite a representative of that body to attend the next national convention, to be held in Philadelphia, and that he be accorded two hours wherein he might enlighten those present as to the objects of his association, was carried.

The afternoon session consisted chiefly of the election of officers. By a unanimous vote the following officers were elected: President, James O'Neil, Kalamazoo; vice-president, C. R. Nichols, Bay City.

The secretary and president were appointed delegates to the national convention.

W. A. Decker was elected as national State vice-president.

George McCullom, Muskegon, and C. P. Tietze, Detroit, were appointed assistants to the executive committee.

The invitation of the Grand Rapids delegation to hold the next annual convention in Grand Rapids was accepted.

In closing W. A. Decker extended a hearty vote of thanks to the Saginaw local association for the able manner in which they had handled such a gathering.

E. FLORSHEIM, Pres. L. A. LONDON, Treas. E. A. LONDON, Sec'y

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Banner Meeting of the Indiana State Association of Master Plumbers.

THE 20th annual convention of the Indiana State Association of Master Plumbers reached the high-water mark of attendance at its meeting at the Dennison Hotel in Indianapolis March 11, 12 and 13.

The ladies were there in large numbers and by their attendance added a certain amount of grace and dignity to the convention.

On Monday, at 11 A. M., President Woolley called the executive board together, which was composed of the following gentlemen: Vice-president McQuade, Indiana Harbor; Allen J. Weinhardt, Terre Haute; Thos. Barnett, New Albany; J. J. Gallivan, Muncie; Jos. G. Hayes, Indianapolis, and A. E. Werkhoff, secretary-treasurer, Lafayette.

The entire day was consumed in executive session.

At 10 A. M. Tuesday morning President Woolley called the convention to order and was loudly applauded by the 175 delegates present. The president called on George A. Geis, president of the Indianapolis local, who welcomed the delegates in a strong and stirring address. Local President Geis then introduced Mayor Lew Shank, who has a national reputation and who made a very happy talk, in which he stated his very positive views in favor of woman suffrage, and to further ingratiate himself with the ladies present he invited them for an automobile ride around the city, which was enjoyed by over 25 of those present on the following day.

President William J. Woolley made a happy response to the Mayor's address, and took advantage of the opportunity to emphasize the fact that the organization was one whose greatest purpose was the uplifting of the craft, and that the interchange of ideas at a convention of this kind could not fail to make a better plumber of any member of the association.

An interesting address was made by J. A. Gurney on "The Relationship of the Master Plumber to the Vacuum Cleaning Industry" and was well received by the members.

President Woolley then appointed the following committees:

Sergeants-at-Arms—J. J. Quinn, Bedford; Wm. Beinburg and Oscar Hermann, Indianapolis; A. Graff, Logansport.

Credential Committee—John Orth, Lafayette; R. H. Gardner, Columbus; A. Lindeman, New Albany.

Auditing Committee—S. A. Schmitt, Evansville; Mr. Freitag, Terre Haute; Mr. Derheimer, Fort Wayne.

Resolution—H. H. Highlands, Gary; Paul Dolan, LaPorte; Christ Aichele, South Bend.

Grievances—Jos. Hayes, Indianapolis; James McQuade, Indiana Harbor; Chas. Johanning, Richmond.

Press—Earl Clevenger, Muncie; John Berk, Gary; Geo. A. Geis, Indianapolis.

H. H. Highlands, chairman of the committee on resolutions.

At the afternoon session a communication was read from National President Frank J. Fee complimenting the State officers on their work for the previous year, and regretted his inability to attend the Indiana convention owing to a previous engagement with his own State association, which convened on the same date.

The president's report was then read, as follows:

In accordance with the requirements of our by-laws and the established custom, I submit herewith my report as your executive officer for the year just ended.

I can assure you that I appreciate the great honor you have conferred upon me by having extended to me the privilege of presiding over this meeting here to-day, and the faith you have displayed in me during the year past.

W. J. WOOLLEY, INDIANAPOLIS, PRESIDENT INDIANA STATE ASSOCIATION.

At the beginning I realized the responsibility, in the same measure, as it has fallen upon those who preceded me, and the day of reckoning would come, when I would be called upon to give an account of my stewardship, as to how well, and how faithfully I had tried to serve your best interests. This, then, is the day that an accounting must be given to you, and I hope to cover this as completely as possible, and I am willing to receive your decision of approval or criticism of you deem necessary.

I prefer, however, that my report will meet with your approval in the majority of those things I have done, because I have acted in good faith, never diverting from what I believed to be the interest of our association, acting at all times without favoritism and with equity to each member. It is indeed a wise custom and a most wholesome law that brings us from the busy world each year, to take an account of our affairs and see what we have done, as well as determine what we can do to preserve and elevate our business.

I trust every delegate will be present each session, and thus store up every bit of information for home reports. Your officers have worked hard to help along the master plumber and his business, as well as to maintain dignity, and his enviable place in progressive society.

We are organized to help one another to further our trade; to develop it, and the need of such meetings as we are holding to-day is far reaching, for we alone must protect our own affairs, and to do this we must counsel with one another, relative to activities for the ensuing year.

It is not my intention in making this report to criticize, or find fault with anyone, and I do not want this conception taken of any things I might say, for it is only my purpose to criticise our weakness, as I see it, and in so doing abolish these weak points, thereby adding strength to our organization.

My very mind and soul have been wrapped up in the affairs of the association during the past year, which has been costly in many ways to my own business, but I realize that someone must make this sacrifice each year in order to advance and protect our business interests. The association work is the most fascinating subject I have ever had the pleasure of coming in contact with, and I truly believe if each of our members would devote just one hour each week to studying association affairs, from an unselfish standpoint, we would in the short space of one year have one of the best fraternal organizations in the world. We have it as it is, but we do not appreciate it.

MEMBERSHIP.

I feel proud, indeed, to be able to report the large increase in membership that has taken place during the past year. The adding of 117 new members to our membership list; the forming of six new locals and the rebuilding of several others is not a small task to undertake in the short space of 12 months. This without question surpasses the work of any State association in recent years, and the fact that many of our new members are men who have been members, but who dropped out for various reasons, greatly increased the work of securing their second application. As a part of the association I hope those new members can be counted upon to contribute ideas as well as numerical strength, and I believe much good material has been added to our association.

New members should be encouraged in every way possible; they should be invited to co-operate with the older members in every undertaking. Interesting the new members is the most economical method of promoting growth. We now have more members in good standing than at any time during the history of our State association, so far as I have been able to trace, by going through the books.

But four firms have been dropped during the year, one on account of death, and the others by their retiring from business. Nine firms now stand suspended for non-payment of dues, but I have every assurance that a great majority of these will pay up within a few weeks. Deducting these from the increase in membership during the year, leaves a total gain of 108, or 245 in good standing at this convention.

Indianapolis has increased its membership from a possible nine in good standing at the last convention to 57 in good standing up to this time. In Ft. Wayne we recently organized a local with an increase in membership from one member in good standing at the last convention to 19 at this time.

Marion, Kokomo, New Albany and Jeffersonville are the other locals added this year.

New members have been added in 32 cities during the year, so you can see the organizing work has been very broad in its scope.

Your president has spent 23 days in all away from his business, doing organizing work; Carl J. Stein, of Chicago, a national director, 11 days; Jos. Hayes, of Indianapolis, 3½ days, and J. A. Gallivan, of Muncie, one day; 1,440 letters and 3,000 papers have been mailed to all non-members in the State by me during the year, and we have had great assistance from the State jobbers and their salesmen in this work. Geo. Geis, of Indianapolis, as well as other active members in this city, have played an important factor in this organizing work, but it was through the combined efforts of all that this work was accomplished so well; this is also the first time to my knowledge the national association has come to our rescue in organization work. Last December I called upon our national president in New York City, and convinced him of the necessity of having the

assistance of the national association in our organizing work in this State, whereupon, Mr. Fee delegated Mr. Stein, of Chicago, to assist me in this work, and I recommend that this convention extend to Mr. Stein a rising vote of thanks for the great assistance he rendered us. Our national president has also been an important factor in this organization work, having sent letters to all non-members in the State upon several occasions in the past few months.

LEGISLATIVE MATTERS.

Most of the work in this connection has been explained in the different issues of our State paper, but the report of the legislative committee will cover this in detail; the responsibility for our failure to secure State legislation during the past session rests largely upon all of our shoulders, as we have all been negligent in this connection, and I would recommend that we not be discouraged at our past failure, but start organizing a campaign that will be so thoroughly covered that nothing can interfere. We should take an active part; first, in the primaries, then in the election of the State legislature; we should gather information and data concerning every unsanitary condition that exists within our State, together with the improvement in sanitary conditions in other States, where sanitary measures have been enacted and put in force.

In fact, our legislative committees, with the assistance of all members, should and can compile sufficient data on this subject during the next two years to absolutely convince the most stubborn as to the necessity of proper regulations for the installation of sanitary appliances. In this way only can we hope to accomplish that which we seek; it takes organization to accomplish any work, no matter how small or trifling.

COMPLAINTS.

There have been but few comp'aints brought to my attention during the year, and these, with the assistance of our executive committee, have been adjusted to the best interest of our members; some complaints have come to this office from members against other members, but these were not serious enough to bring before the executive board.

EXECUTIVE BOARD.

There have been but two called executive meetings during the year, the minutes of which you will hear at this convention; most of the work of the executive committee has been carried on through correspondence, and while I have in many instances proceeded with the work, awaiting tardy answers, I am pleased to say the board has sanctioned every action I have taken; however, I would like to see only such men as will promise to answer communications promptly elected as members of the board; for this one feature is of vital importance to the incoming president, and without it he is adrift upon a sea.

Especially, do I want to comment upon the assistance rendered me during the year by Joseph Hayes, of Indianapolis, who has willingly and at a moment's notice assisted me in many of the important transactions of the association during the past year. He has been a devoted association worker, and his efforts have been valuable.

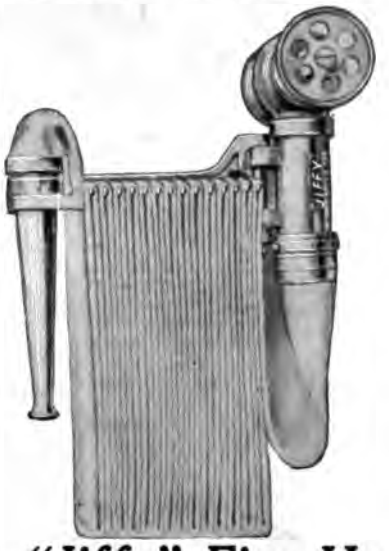
The buyers' list, as adopted at the board meeting in September, was never carried out, through failure of our members to return the blanks sent out by the president, which was the only feasible way such a list could be compiled; however, we will fully discuss this feature during this convention; the collection agency was abolished for the same reason, lack of interest.

Your president and Mr. Hayes have had numerous meetings during the year with the State Jobbers' Association, and the efforts of these meetings have been of value to the jobbers, as well as our own association. Our relations have been most pleasant at all times, and the work we have started will be of value to our trade.

THE STATE PAPER.

Shortly after the last convention I concluded that a State paper would greatly assist us in further organizing the State, and I can say to you frankly, that when I undertook this publication, I did not fully realize what I was up against, as I thought the members would contribute a sufficient quantity of interesting material to fill it each month; not being an editor, writer or advertising man, this was no small undertaking, but with the assistance of a few of our loyal manufacturers, I was able to start the paper without cost to the State, and it has been self-sustaining and a money-maker from the first issue. In the contributing of mate-

THE "JIFFY" FIRE HOSE RACK



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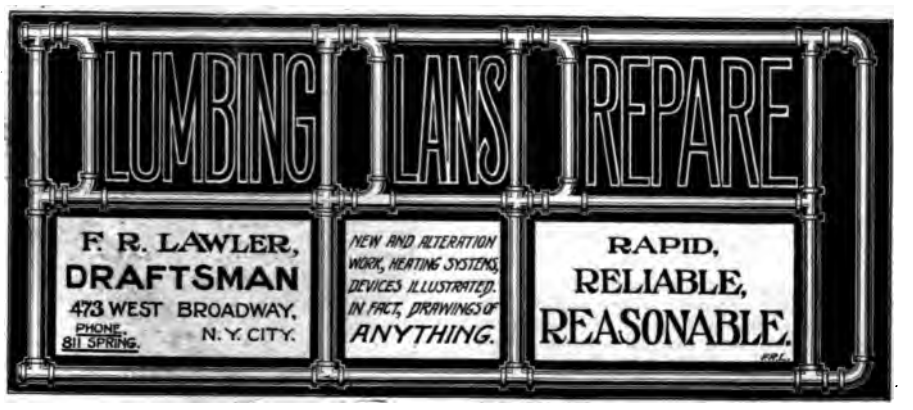

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rial and essays by members I have been greatly disappointed, as I have had to furnish every line that has gone to make up the papers, except that contributed by Messrs. Highlands, Andrews, and a few others.

The editor's name, E. M. Smith, which appears in the front of the papers, is in reality a fictitious one, being drawn from initials of a stenographer in my office, who acts as a clerk or assistant secretary for the State, and who by the way is the only salaried officer of the State, and whose pay will aggregate $3 per week. With the advertising we are now running, the paper will make a net profit of about $70 per month for the State association in the future, and it is up to this convention to say whether or not the publication shall be continued.

If it is your wish that it shall be continued, I will say frankly that you will have to provide means for someone to edit it in the future, as I cannot afford to give my time to this work any further, and unless someone will volunteer to do the work without compensation the paper will have to pay the freight.

This is the first State paper that has ever been started and maintained that was a money-maker from the start.

I am informed that the *Ohio Master Plumber* cost the Ohio State Association something over $1,200 to successfully launch; New York and Pennsylvania also spent vast amounts in an effort to launch a State paper, but finally abolished the idea. So you see we have another feat accomplished during the year, for which we can feel justly proud.

We should by all means continue the paper and improve it from time to time by adding new features that will be of interest and importance to our members.

I would recommend that in the future the classified advertisement column be free to our members in disposing of dead stock, overload of material or tools, etc., that they find difficult to move in their localities; I would also recommend that the "What's the Trouble" column be used more extensively in the future, and I believe we should have a State committee on systems pertaining to the office of a master plumber, and the reports and findings of this committee should be published in the paper.

The paper can be of untold benefit to us as individuals and to the association, if we would all help just a little.

GOOD AND WELFARE.

Under this head it is my intention to give you in as few words as possible an idea of how I believe the association should be run. I must confess I knew very little about the real workings of the association when I took the reins from Mr. Maloney last year, and many a night have I pondered over my past misgivings for not having attended the meetings, while at the convention in years past, for I, like many others, attended the convention only to be entertained.

Probably some of these thoughts I have to offer are not new ones, but I offer them as thoughts I have put in practice during the past year, and which I believe to be right and proper.

After making a careful study of our by-laws and the past workings of the association, I am convinced that we have not, to any great degree, followed the objects for which we were organized, and in diverting from these objects we have in a great measure lost our prestige and influence. If we are to make a success of this organization we must follow the objects as laid down in our constitution and by-laws, and if we do this we will have accomplished a great work.

In the first place, no local association should bar a man from becoming a member who contemplates entering the business, either by rule or by exorbitant initiation fees. If you want to make a good competitor of that man take him into your confidence, make a friend of him, show him the folly of taking work for nothing; I do not mean by this that you should fix prices, for I believe such practise will eventually disrupt any organization.

If every local association will meet regularly, have blackboard talks on "overhead expense" and other questions that are of direct interest to its members as business men, the fixing of prices will not be necessary, for when a man becomes acquainted with his true "overhead expense" he stops juggling figures.

When we enter the plumbing business as master plumbers from the journeyman rank, we enter a new field and one in which we have had no training. It becomes necessary for us to pick up day by day, year by year, the business knowledge we must acquire, and in doing so our mistakes are many and costly. If we were fought by our competitors it perhaps makes the road all the rougher.

If the fight should be severe, we learn to doubt and mistrust them; we learn to buy from "wild cat" jobbers and when we are at last admitted to their confidence we are skeptical of everything and everybody. We have made friends with the "wild cat" jobber, the "cut throat" general contractor, and we refuse to let go of these, as we are not certain as to sincerity of our new associates, and an uneasy feeling exists.

So I have come to the conclusion that the following rules should be applied to all associations:

1. Take into the association every man that is eligible, as prescribed in our by-laws; make every effort to get him in.

2. Refrain from allowing personal feeling to enter into your association affairs, and elect men to offices who will devote their time and attention to the association work. Vote for the men who are best fitted for the work they are to perform, even though you dislike them personally.

3. You should not be hasty in judging the other fellow; be broad in your conclusions; if you find him at fault, don't fly the handle, but talk to him in a friendly way, sit down and show him his mistake. If he repeats it, shame him in a nice way, and you will find this method a more effective

C. H. MALONEY, GARY, IND.

cure than open censure, and you will both profit. Apply the Golden Rule to your association, "that of treating other as you would be treated," and I believe that you will find harmony and good will will prevail.

4. Make your meetings interesting to your members, and this can be best accomplished by following the work as outlined in Article 3 of our constitution, and Article 4 of our by-laws.

I dare say there is ample work prescribed in these articles to keep you constantly digging, and you will find the work interesting.

5. Have blackboard talks on "overhead expense," business systems and hundreds of other subjects I might mention; but if you follow out this one point alone, I can assure you that within a very short time you will be receiving some of the profit the public thinks you are now making and to which you are justly entitled. Indianapolis and other locals are now taking up this work and find it very interesting material for their meetings.

6. Take up questions pertaining to the rules of your local board of health, board of works, water board, etc. Ferret out the rules that are detrimental to your business and naturally to your customer; make an open fight against these unjust rulings, give them sufficient publicity and you will find the public with you; discuss any grievances you may have against a customer, jobber or workman. Counsel with the other members on the questions involved, as their views might change your conception of the subject and avert trouble.

Another important asset of a local association is the compiling of a "deadhead list." Place upon the wall of your association quarters a blackboard where the names of all "deadbeats" can be placed; the members can copy from this board these names for use in their offices to prevent loss by extending further credit to these people.

7. Try in every way to live down the belief of the public that we are formed for the purpose of holding them up, and of preventing others from embarking in the plumbing business, as well as blacklisting jobbers and manufacturers who sell to plumbers other than association members.

Why we have been branded as guilty of such unlawful transactions, I am at a loss to explain, unless our past policy of holding local meetings secretly in order to keep down such belief, has only strengthened it.

I want to pause here to say that I have found plumbers who were of the belief that we were formed for this purpose, but I defy anyone to show a clause in our constitution and by-laws that could be interpreted to that meaning, and as your executive officer I have at all times forcibly denounced any such thoughts; we are formed for no purpose other than stated in our by-laws.

We must confess that we have been negligent in a great measure in the advancement of these objects, and I sincerely trust that in the future more activity along this line will be displayed; the greatest evil we have to combat to-day, is the department stores and general contractor, and unless we take more active steps, we will soon find conditions in this country the same as in Europe, where the master plumber has ceased to handle any of the material on the job, through his lack of organization, and where the jobber has been converted into a typical Chicago mail order house.

Last, but not least, in association affairs I would urge more social gatherings, as a limited amount of entertainment adds life to the organization, and I would suggest that State members in your locality be invited to participate in these events.

The most feasible plan I have found to run an organization and to create interest is as follows: Have your revenue for your association expenses come by assessments, of say, five cents per fixture installed, by each of your members; this does not work a hardship upon anyone, and each man pays dues in proportion to the amount of business he does.

You will find that this method will raise sufficient money to pay hall rent, entertainment expenses, State and national dues, delegates' expenses to the State and national association, and other legitimate expenses; as a good plan to insure regular attendance I would suggest that each meeting night a drawing take place; if you are entitled to, well, say, four delegates to the State convention and two to the national, place the six pieces of paper in the hat with "State" written on four, and "National" written on the other two, and place as many blanks in the hat as there are members in attendance at the meeting. At the end of the year the two men having drawn the greater number of "National" slips to their credit are elected delegates to the national convention, and the four men having the greater number of "State" slips are elected to the State convention, with all expenses paid; you will be surprised at the interest this will create and how well your meetings will be attended.

For some reason our organization lacks the fraternal feeling and this question I have given a great deal of study; just how to develop this I am at a loss to explain, but in designing the badge you are wearing to-day, I felt the gold emblem button on the pennant would serve as an identification mark as to who were members and probably promote this feeling.

Another thought I have to offer, and in fact do recommend, is that this convention take action upon a resolution to insert in our by-laws a death benefit clause along the following lines:

If death should take from us one of our members during the coming year, his estate should receive $50 as a death benefit. During the second year $100, during the third $150, during the fourth $200, during the fifth $250, and $250 annually thereafter, provided however if the holder of the policy should allow his dues to become delinquent at any time the policy is forfeited and he must enter as a new member. The policy to be issued in case of partnership to the one who takes an active part in the association affairs.

This, of course, is only an outline and will require considerable work to place in proper shape, but I would recommend that immediate steps be taken to put this in practise, as I believe it would

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Have you had trouble with check valves—hot water circulating into cold? If so, use our figure 108 on your next job of four-valve showers. This is our leader.

incentive to hold our present membership ild up our organization.

OUT-OF-TOWN WORK.

ractise of some master plumbers going into ies outside of their natural zone, is one things that has created considerable feeling plumbers of the State.

e is nothing in our by-laws to prevent such , and it rests entirely upon the honor of n involved of doing unto others as they e done by.

s been my experience as a master plumber very little profit and absolutely no satis- by intruding upon other territories, and to profit at their expense, and I believe if ild devote just as much time to creating s in our own community as we do in seek- rk in other territories, we would have an ice of work without intruding upon our in the neighboring cities.

RECOMMENDATIONS.

ild recommend to the incoming officers and endorsement of this convention the fol-

hat the meetings between the association and the State jobbers' association be con- as it is the most feasible way of advancing r interest and in keeping harmony within pective ranks.

iat a retail price book be published by the ssociation similar to that issued by the association, and that a committee be ap- by the incoming president to complete ails.

iat a committee be appointed at this meet- nvestigate the feasibility of adding a death clause to our membership.

iat we send all the delegates we are entitled ie national convention.

hat you provide ways and means to con- he publication of the *Indiana Master* , as the official organ of the State asso-

hat the purchasing power of each of our s be gathered and the information filed records revised each year.

iat each local association keep this State nformed of successful plans in creating and attendance at meetings.

iat an assistant secretary be maintained in ident's office to further organization work ure prompt reply to all communications.

iat the officers of the association counsel State jobbers' association to devise plans sing the present methods of charging for and cartage, to the end of having it in- n the first cost of the manufactured article. hat like steps be taken to adjust or abolish rantee on enamel ware, or by taking the cost of replacing defective fixtures off the shoulders of the master plumber.

11. That a standing committee on standardizing of plumbing material be added to our present list of committees, to suggest needed changes in this connection.

12. That a standing committee on the apprentice question be added to the list of committees to further this important question.

13. That the State association bear more of the expense involved at our annual convention, and in this way take a greater load from the local associations in the city in which the meeting is held.

14. That we make every effort during the coming year to divorce our work from the general contractor.

15. That locals refrain from electing new secretaries each year, as this is an important office and a secretary should be thoroughly familiar with the work he is to do, which requires time.

FINANCIAL.

I believe more money has been spent during the past year than in any year except, perhaps, the two years that an organizing secretary was employed; however, the receipts for this period have been heavier than at any time in the history of our organization, and we close the year's business with quite a sum to our credit, and I believe we have ample in the treasury and income to take care of any and all the recommendations and suggestions put forth in this report. However, complete information relative to our financial condition will be found in our treasurer's report.

In conclusion I wish to say that all correspondence to the president has been promptly answered, 2,246 letters and 6,000 papers have been sent out from my office during the year, while the number of letters received was approximately 500.

I have endeavored to give you a careful and economical administration, and I will take advantage of the opportunity offered by this meeting to thank all of our members, through their delegates, for their generous support and the kindly courtesy shown me during my term.

The president's report was enthusiastically received, and on motion of Mr. Highlands it was referred to the resolution committee to be printed in full in the convention proceedings.

The secretary-treasurer's report showed an increase in the bank balance over the previous year.

The credentials showed 137 [illegible] standing.

We Make a Specialty of
SHOWERS

Send for Circular
N. Y. Modern Brass Works, Inc.
Established 1895
BRASS FOUNDERS AND FINISHERS
Fire Department and Plumbers' Supplies
667 First Avenue, New York

DRAIN BOARDS

SHWAB BROS. CO.
Manufacturers of Everything in
Plumbers' Wood Work
[illegible] WASHTUB COVERS
[illegible] PLUSH PIPES
[illegible] St., New York

The convention then went into executive session.

Wednesday morning's session was largely devoted to a discussion of the proposed Indiana sanitary laws, especially as relating to Senate Bill No. 111, that was recently defeated. George Kirkhoff, of Indianapolis, who has devoted considerable time and expense in an effort to secure sanitary legislation, gave a very interesting talk, in which he emphasized the fact that the proposed law was drawn as much for the protection of the public as it was for the members of his own craft.

The auditing committee reported that it found the books of the association in excellent shape.

The officers proposed for the ensuing year were all elected without a dissenting vote. They are: President, William J. Woolley, Evansville; vice-president, Joseph Hayes, Indianapolis; secretary-treasurer, A. E. Werkhoff, Lafayette, and the following directors: Thomas Barnett, New Albany; J. J. Quinn, Bedford; Charles Johanning, Richmond; Allen E. Weinhardt, Terre Haute; J. A. Gallivan, Muncie; T. F. Hipskind, Wabash; John F. Schwegman, Fort Wayne, and H. H. Highlands, Gary.

In accepting the office for a second term President Woolley stated that he did so with a great deal of reluctance, as he had found that it took considerably more of his time from his business than he anticipated, but that he would serve the association during the ensuing year and would use every effort to promote its interests, the same as in the past.

H. H. Highlands and Joseph Hayes were elected delegates to the national convention, to be held in June, and M. F. Noll and James Clements to act as alternates.

Lafayette was selected as the next meeting place.

The Ladies' Auxiliary, consisting of the wives and relatives of members of the association, is a new association branch that was formed. The large number of ladies who compose this auxiliary, together with the enthusiasm manifested by all of its members, ensures its success. The following are its officers: President, Mrs. George A. Geis, Indianapolis; vice-president, Miss Martin, Fort Wayne; secretary, Mrs. G. A. Wurgler, Indianapolis, and treasurer, Mrs. P. J. Dolan, Laporte.

On Tuesday night a banquet was served in the main dining room of the Denison Hotel. President Woolley was toastmaster and among the speakers introduced were L. B. Mettler, H. H. Highlands and Joseph G. Hayes. Mrs. Allen E. Reinhardt, of Terre Haute, was the only lady speaker called on, and her address was vigorously applauded.

The following is the list of exhibits on the convention hall floor with the names of those in charge:

The Vailes-Kimes Co., Dayton, O., C. E. Barnett, R. L. Tausel; Great Western Pottery Co., Kokomo, Ind., C. H. Muckenhirn; American Valve Co., Indianapolis, Ind., C. A. Wulf; Van Camp Hardware & Iron Co., Indianapolis, J. A. Schleuter, C. Casthen; Illinois Pump & Brass Co., Peoria, Ill., C. L. Wilkins; the Johns-Manville Co., New York, L. W. Boyden, C. E. Wehr; Van Arnam Mfg. Co., Fort Wayne, Ind., E. R. Lewis; Leader Iron Works, Decatur, Ill., A. B. Chambers; Compound Injector & Specialty Co., Chicago, George J. Dahn, A. G. Parker; George J. Roberts Co., Dayton, O., E. P. Sheeran; Ruud Mfg. Co., Pittsburgh, C. B. Allison; Pittsburgh Water Heater Co., Pittsburgh, E. J. Barrick, L. B. Mettler; Rickersberg Brass Co., Cleveland, O., J. J. Grosser; Peerless Selling Co., Evansville, Ind., H. F. Weaver, C. G. Perkins, G. R. Smith; Michigan Gas Appliance Co., Jackson, Mich., S. Plum; H. Mueller Mfg. Co., Decatur, Ill.; D. E. Rowley; Columbus Brass Co., Columbus, O., George S. Barron; Blake Specialty Co., Rock Island, Ill., H. T. Koehnke; L. J. Mueller Furnace Co., Milwaukee, Wis., W. F. Brien; Bishop-Babcock-Becker Co., Cleveland, O., H. E. Dewey.

Greater New York News.

THE Heights Plumbing Supply Co., of 495 W. 145th St., Manhattan, carry a complete line of plumbing specialties and steam fitting supplies. They do an extensive business throughout the Washington Heights section.

Herman First, formerly of Lexington Ave., Manhattan, has removed to 68 E. 116th St.

Louis I. Breyman, formerly of 4031 Third Ave., has moved to larger quarters next door. He has a nice show room, where he will be able to make a good display of his goods. He is quite busy on new work and overhauling.

John Newman, formerly of 890 E. 169th St., Bronx, has moved into larger and more commodious quarters at 1250 Steuben Ave.

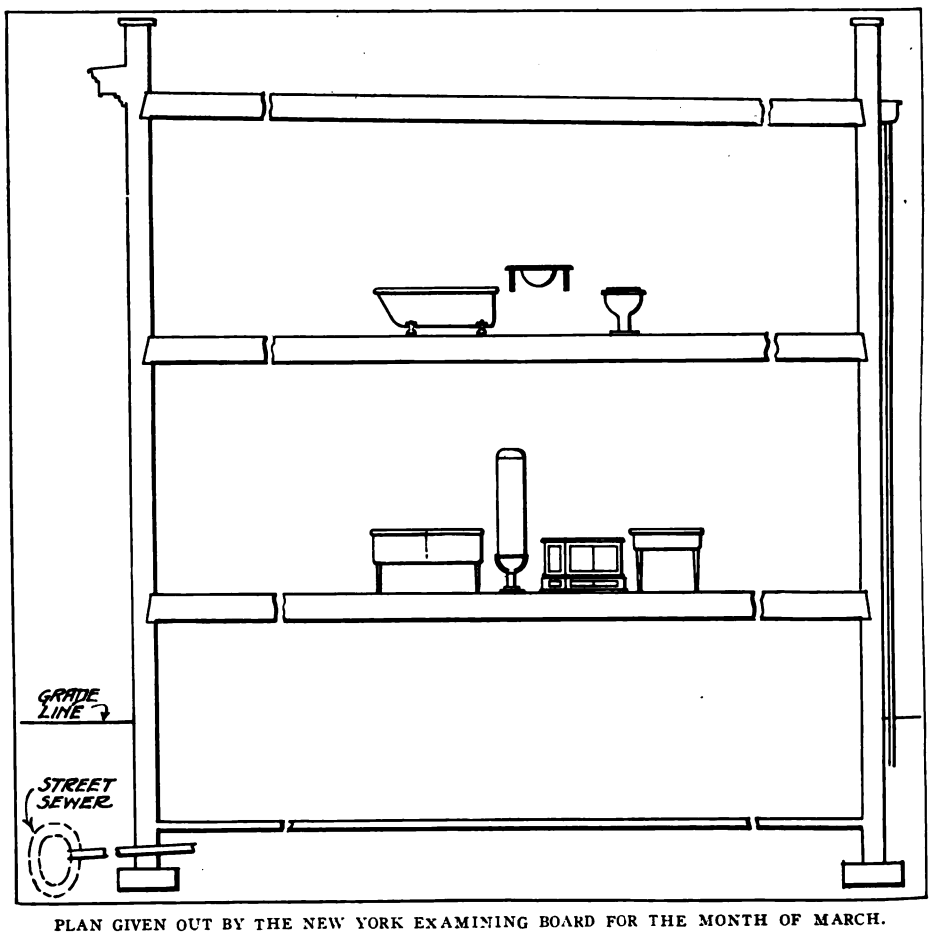
Charles Steiner, of 114 Ralph Ave., Brooklyn, has opened up a new shop and show room at the above address. Mr. Steiner is well known in his section and would like to receive catalogs from the trade.

Ewing, Bacon & Henry, Inc., agents of Manhattan, have rented to the Powers Regulating Co. the ground floor at 220 East 41st St.

Examination for Plumbers' Certificates.

AT a meeting of the New York Examining Board of Plumbers at their rooms, 149 Church St., March 24, the following plan with memorandum attached was presented as the scheme of their examination for the month of March:

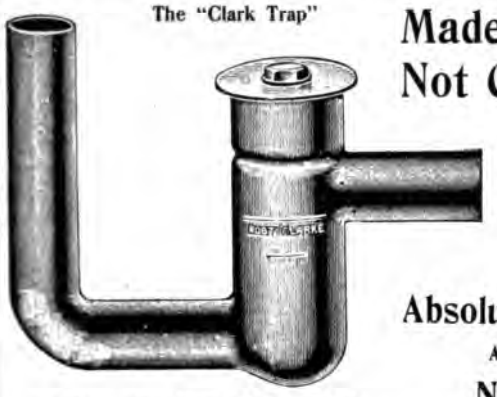
Plan.—Fill in and mark sizes of soil, waste and vent lines, hot and cold water



PLAN GIVEN OUT BY THE NEW YORK EXAMINING BOARD FOR THE MONTH OF MARCH.

SAND HOLES? NEVER!!

The "Clark Trap"



Drawn, Not Cast, "That's Why"

Made from Drawn Lead
Not Cast = = That's Why

It's the Reliable

Clarke Trap

Absolutely Non-Syphoning

Approved by all Boards of Health

No Other "Just as Good"

Of Course You Want a Catalog. Shall We Send It?

Manufactured by **ROBERT CLARKE**

100 Schermerhorn Street, Brooklyn, N. Y.

Electrical Pump Exchange

All makes of Electric Pumps Bought, Sold, Rented and Exchanged.

Manufacturers of the Enclosed Gravity Tank Switch for the Automatic Control of Electric Pumps.

Pumps Rented for New Building Work.

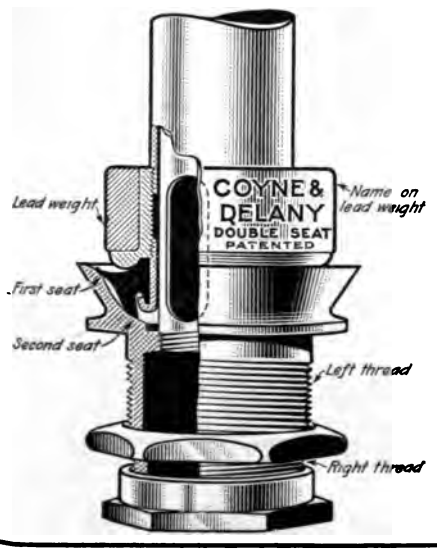
Repairs to all kinds of Electrical Machinery.

The Electrical Repair Company, Inc.

Telephone—Chelsea 1809 548-550 West 23rd Street, New York

The Coyne & DeLany Double Seat Valve

IT IS THE ONLY ABSOLUTELY TIGHT VALVE ON THE MARKET



Some Reasons for the Above Statement:

It has two separate and independent seats.

Positively prevents dripping.

There is no chance of washer pulling off.

Quickly repaired—simply pull up the plunger.

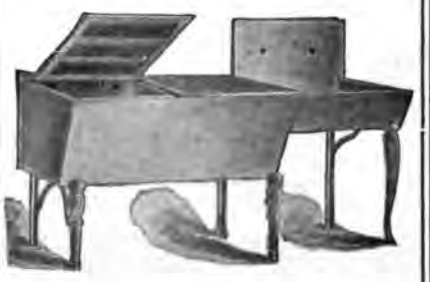
Extra heavy lead weight.

Coyne & DeLany Co.

BROOKLYN, NEW YORK

PERMANENT—GUARANTEED

Sanitary Washtrays and Urinal Stalls



Cleanest and Best

Recommended by the Leading Architects

Used in best public schools, residences and public buildings, where correct sanitation is required.

WRITE US FOR PRICES

Phoenix Soapstone Company

116 Nassau Street
New York City

pipes, traps, fittings and connections, leaders and drains.

Answer Sheet.—Write down the kind of fixtures (basins, sinks, etc.) which you would use in doing the plumbing work shown on the plan you have filled in.

Write down and give reasons for 10 things about which you would be careful in doing the plumbing work.

Graduation Exercises at the New York Trade Schools.

THE graduation exercises of the plumbing and heating classes of 1912-13 of the New York Trade Schools occurred Wednesday evening, April 2, before a large assemblage of the parents and friends of the graduating class.

The happy recipient of the gold medal annually donated by the Manhattan branch of the New York Master Plumbers' Association was Warren M. Uhler, of Nazareth, Pa. Ernest C. Simmons, of Dwighton, Mass., received honorable mention in connection with this medal.

In a short and appropriate speech John Byrns, a member of the Master Plumbers' trade schools committee, made the presentation on behalf of the Master Plumbers' Association.

The following is a complete list of the graduates of the plumbing and steam-heating classes:

Plumbing—John Knowles, Paterson, N. J.; Benj. H. Adams, Lewiston, Me.; Leslie M. Heatherton, New York City; Allen F. Lebo, Valley View, Pa.; *Warren M. Uhler, Nazareth, Pa.; Cecil E. Woodard, Haines Falls, N. Y.; Joseph L. Hartley, Paterson, N. J.; Henry Meierdierck, Newark, N. J.; Frank E. Wessells, Peekskill, N. Y.; Warren S. Becktel, Riverhead, L. I.; *Walter F. Erxleben, Harrison, N. J.; Thomas B. Benner and Wallace L. Benner, Chambersburg, Pa.; Harold R. Blakslee, So. Ashfield, Mass.; Harold Brunton, Jersey City, N. J.; Arthur J. Camp, Woodstock, N. B., Canada; Walter Kling Highwood, Conn.; Edward H. Tyndal, Taunton, Mass.; Joseph M. Ketcham, Northport, L. I.; Hubert B. Nisbeth, Chappaqua, N. Y.; Richard N. Cadmus, Bayonne, N. J.; Ernest A. Dilks, Sault Ste. Marie, Ont., Canada; James Stuart, Stockton, Cal.; *Ernest C. Simmons, Dighton, Mass.; *William R. Johnston, Marbledale, Conn.; Norman O. Walck, Hazleton, Pa.; *William E. Morgenroth, Newark, N. J.; Edward J. Egan, Milwaukee, Wis.; Joseph Pascucille, Tyler City, Pa.; John H. Riddle, St. Marys, Pa.; *Frederick Singer, Naugatuck, Conn.; Ralph S. Cavan, Delhi, N. Y.; Walter H. Schmidt, Jersey City, N. J.; Julius Bodendorf, Jr., Westfield, N. J.; Ezra C. Sturges, Phoenixville, Pa.; Charles Ruggiero, New York City; DeWitt C. Goldsmith, Center Moriches, L. I.; Thomas W. Montrose, Monroe, N. Y.; Howard R. Stuart, Winston-Salem, N. C.; Alexander D. Shafer, Siegfried, Pa.; Vincent J. Duffy, New York City; William F. Boos, Albany, N. Y.; George L. Bird, Elizabeth, N. J.; Michael K. Schappert, Wilkes-Barre, Pa.; J. Walter Runner, Corning, N. Y.; Charles B. Georgi, Newark, N. J.; LeRoy Evans, Audenried, Pa.; John S. Wilson, Plains, Pa.; Eli Barlow, 2d, Corry, Pa.; John L. Schinnagel, Brooklyn, N. Y.; Joseph H. Owen, Fall River, Mass.; Joseph F. McCaffrey, Brooklyn, N. Y.; Walter Warington, New York City; E. F. Young, Butler, Pa.; J. Codispoti, New York City; A. L. R. Blome and Edgar P. Hannelly, New York City; Meredith R. Hawkes, Brooklyn, N. Y.; Henry M. Heeseman, Van Nest, N. Y.; *William G. Knoll, Brooklyn, N. Y.; William A. Kohut, New York City; Frederick J. Neumann, Mount Vernon, N. Y.; Ben Penzel, Brooklyn, N. Y.; Louis J. Schaefer, Jr., Evergreen, L. I.; Frank Schlaich, New York City; Adolf E. Schultze, Brooklyn, N. Y.; Philip Unhoch and Charles Vesztrucsy, New York City; Harold White, Brooklyn, N. Y.; Barney C. Schehl, Corona, L. I.; Henry J. Thurman, New Durham, N. J.; Louis M. Offenheiser and Harris J. Engle, New York City.

Steam and Hot Water Fitting—Chamberlain Carter, Picton, Ontario, Canada; Harry R. Fischer, Hamilton, Ontario, Canada; Frederick S. Willams, Homer, N. Y.; William B. Betzig and *Thomas F. Meehan, New York City.

Students having a * opposite their names are Honor Roll students.

A rare treat was in store for the boys when the chairman announced that the Hon. William C. Redfield, Secretary of Commerce in President Wilson's Cabinet, would address them. The Secretary was listened to with rapt attention throughout, and his heart-to-heart talk to the young men who are about to start out for themselves in the business world cannot fail to leave an indelible impression upon their minds.

Secretary Redfield's address will be found on page 290 of this issue.

New Concern at Maspeth, N. Y.

THE Maspeth Electro-Plating Co. has bought out the B. & K. Mfg. Co., of 21 Dyson St., Maspeth, Long Island, and has made many improvements in the plant. The company is now equipped to do electro-plating of every description on short notice.

Replating of plumbers' supplies is one of the concern's specialties. The plant also has special facilities for refinishing chandeliers and bedsteads equal to new. Work will be called for and delivered.

A Busy Bronx Firm.

IN his rambles around the Bronx our representative made a call on Cassidy & Crotty at their new shop and showroom at 1687 Southern Boulevard. They have plenty of work on hand and are estimating on a number of plumbing and steam-heating jobs which they are pretty sure to land. Messrs. Cassidy and Crotty are well known to the trade as having been formerly on the arbitration board of the journeymen's union, and were the means of facilitating the pleasant relations that now exist between the master and journeyman. Both men are well experienced in the trade, and we wish them success.

An Old-time New York Plumbing Establishment.

ONE of the old-time plumbing firms of Manhattan that have been in business for over a quarter of a century in the same location may be mentioned that of J. & J. McVea, of 460 W. 31st St. Besides having the work of a number of estates which requires a large force of men, they do a good share of the business on the west side. They are now estimating on a big contract on the west side, and are pretty sure of landing same. We reproduce herewith a photo of their

PLUMBING ESTABLISHMENT OF J. & J. M'VEA, OF NEW YORK CITY.

establishment, with J. McVea on the extreme left. The old gentleman standing next (now deceased) was the father of the two boys.

Meeting of the National Association of Brass Manufacturers.

THE National Association of Brass Manufacturers held their Spring meeting at the Planters Hotel in St. Louis, Mo., on Tuesday and Wednesday, March 18 and 19, and from point of attendance and what was accomplished it

een the most successful Spring meet-eld in many years.
ıstructed the commissioner to compile ssue statistics showing the cost of copper and prices at which the va- kinds of goods in the water brass line have been sold in the past 20

tried out its second experiment of ling each member the sum of $10 for present to answer all roll calls and nstant attendance at all sessions of eetings, except when excused by the which has a very strengthening and cial effect.
took in several new members, ap- d a committee to devise ways and to stop further loss, and adjourned et in Cleveland, O., on June 10 and this year.

Baths Recommended for Baltimore, Md.

ts annual report, sent to Mayor Pres- on on March 28, the Bath Commis- ion recommends that a bathhouse and comfort station be built at or near way Market, and that an indoor ning bath be established in the neigh- od of Walters' Bath No. 1, S. High

commission urges the acquisition of able strip of the natural beach on uth side of Fort McHenry for the shment of permanent recreation ning baths. It urges also the devel- t of an open-air swimming bath in rthern or northeastern section of the

report states that the public baths patronized 1,395,044 times last year, at the receipts from fees for soap, bathing suits, washing equipment, ggregated $18,884.97.
istory of public baths in Baltimore is by the commission. It is divided into periods, as follows:
t Period—Years of experiment; har- ths.
nd Period—Opening of the first three bathhouses.
d Period—Expansion from 1906 to nd including two new indoor baths, rk swimming pools, two public com- tations, four portable baths and one tion house.

e Patronage for Fort Wayne, Ind.

HAT Fort Wayne architects, con- tractors, plumbers, etc., be em- ployed on new buildings erected and that the bids on all the work be l publicly, instead of privately, as at t, was the sense of a resolution by the Indiana Retail Merchants' iation, of Fort Wayne, at its regular ly meeting at the Commercial Club 4.
ert Spice, who introduced the matter, attention to the fact that plans for l new buildings erected in Fort e recently had been drawn by outside cts, who had given the plumbing to firms in their own cities, disre- g the bids of local concerns.

GALVANIZED IRON COVERS

Something New

Patent Applied For

FOR

Laundry Tubs

The only all iron cover made, absolutely no part wood.

Strong, Durable and Attractive.

This cover makes the laundry tub perfectly sanitary.

Prompt shipments on regular sizes.

Regular Sizes: 21¾ in. x 4 ft. with 4 in. back strips. 24 in. x 4 ft. with 4 in. back strips.

Extra Sizes: made to order on short notice. Send for full information and prices.

GREASON MANUFACTURING CO.

108 West 99th Street, New York, N. Y.

Always on duty *Established 52 Years*

The Wm. Burrows Mfg. Co.

Manufacturers of Plumbers' Material

430-4 Kent Ave.
Near Roosevelt Street Ferry

Brooklyn N. Y.
Formerly at 72 Cliff St., N. Y.

We can eliminate 90 per cent. of your troubles by our quality of high-grade Plumbers' Woodwork, such as Seats, Tanks, Lavatories, Drain Boards, Bath Stools, Medicine Cabinets, etc.

Prompt delivery and satisfaction guaranteed.

PHONE LENOX 826

For Prompt Service and Guaranteed Goods.
Look Your Stocks and Dies Over.
I can furnish you parts for all kinds and makes of Stocks, also Extra Dies, Pipe Cutters and Parts.

GIVE ME A TRIAL

HOWARD M. BULLARD

Plumbers' Specialties

1254 LEXINGTON AVENUE NEW YORK

Exhibit Space at the National Convention in June.

AS the time is rapidly approaching when the national association will meet in the City of Brotherly Love, it behooves the members of our trade who are desirous of exhibiting their products at the convention to make an early application for space. We herewith reproduce a circular sent out by the exhibition committee, together with diagrams of the exhibition rooms:

"No doubt you are aware of the fact that the National Association of Master Plumbers of the United States will hold its 31st annual convention in Philadelphia on June 17, 18 and 19, 1913.

"The Bellevue-Stratford, the finest and best hotel in Philadelphia, has been selected as headquarters.

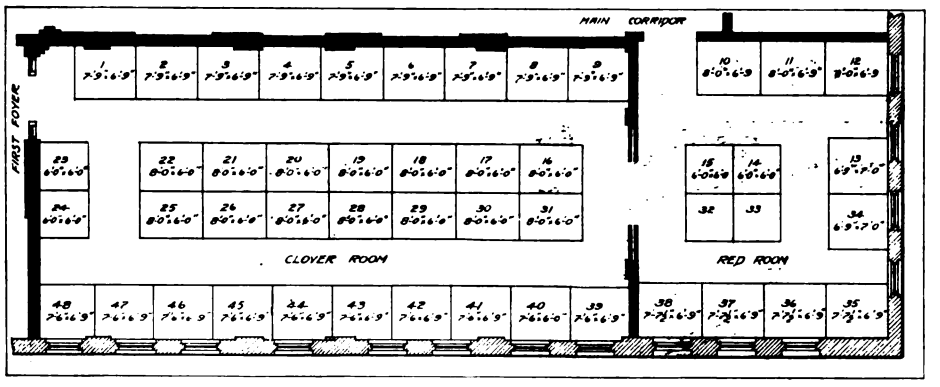
"It has become the custom at all national conventions to have an exhibition hall where manufacturers and jobbers of plumbing and heating materials and specialties can display their goods. With this object in view, and for the convenience of exhibitors, a committee has been appointed to formulate plans and select suitable quarters. In making these arrangements it has been the desire of the committee to improve on everything of a like character ever before attempted.

"The Clover and Red rooms of the Bellevue-Stratford have been leased for this purpose. These beautiful rooms are located on the first floor and adjoin the convention hall, and will be open to the delegates and the public from 9 A. M. to 10.30 P. M. each day of the convention, with an abundance of electric light and electric fans, if necessary.

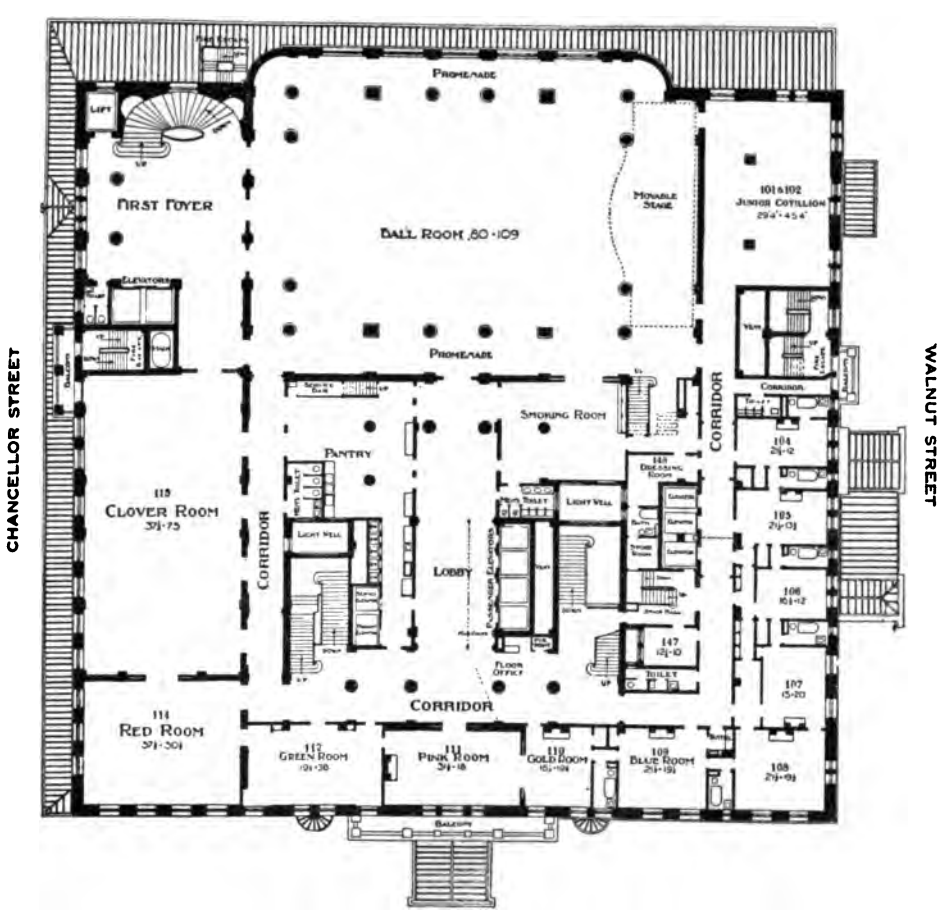
"Enclosed find floor plan and blueprints which show the exhibition spaces. The prices of all spaces are $100 each, excepting the corner spaces, which are $125. All spaces will be sold subject to prior sale. Representative men of the craft from every section of this wide country of ours will attend this convention, and your goods can never be shown to better advantage.

"Are you interested? If so, write or wire immediately, as the demand for the spaces is far in excess of our expectation.

"Truly yours,
"EXHIBITION COMMITTEE,
"Harry B. Lentz, Chairman.
"634 W. Girard Ave."



FLOOR PLAN, SHOWING EXHIBIT SPACES.



PLAN SHOWING EXHIBIT SPACE AND BALLROOM WHERE THE NATIONAL ASSOCIATION WILL MEET IN JUNE.

February Report of Inspector Card of Meridian, Miss.

THE report of City Building, Plumbing and Electrical Inspector C. M. Card, of Meridian, Miss., for the month of February has been filed with the city commissioners, and it proves quite interesting. It shows that building permits for the erection of buildings in the sum of $15,450 were issued during February, and some important recommendations are made.

Mr. Card states that he was accompanied over the city in a general inspection by T. Robinson, State inspector of the Standard Inspection & Advisory Rating Co., and reports that they found outside were conditions hazardous to life and property, and that he was conferring with the city attorney in regard to a remedy.

The report also stated that the street lighting was bad in damp weather, because of leakage of current in trees and other sources.

The report showed that the inspector had visited 64 electrical and eight plumbing installations during the month.

Mr. Card also paid his respects to the method of installing plumbing in Meridian, declaring in the report that he had found that the department had been run largely in the discretion of the plumber. He recommended that the plumbing ordinance be revised and relieved of numerous superfluous code sections.

Open Meeting to Be Held in Brooklyn, N. Y., April 13, 1913.

ANNUALLY the Master Plumbers' Association of the Borough of Brooklyn holds an open meeting to give master plumbers legitimately engaged in the plumbing business an opportunity to talk over trade conditions and other matters of general interest. This year's meeting will be held Wednesday evening, April 30, at 8 P. M., in the hall of the Jefferson building, 4 and 5 Court Sq., Brooklyn, N. Y. In addition to the short talks by officers of the association, there will be a collation and a vaudeville entertainment of headliners. Smoking will be permitted and a real good time is promised all those who attend.

Plumbers—Attention!

If you would increase your business use the

BURNHAM HEATERS

BOTH STEAM AND WATER

There Is a Reason—Ask For It

GEORGE E. SEALY CO.

9 Cortlandt Street, New York City

Phone 4097 Cort.

OILERS, TANKS AND SPECIAL PLATE WORK

YOU CAN SAFELY USE **KEROSENE**

Cheaper Fuel
Easily Cleaned
Safe to Use

Extra Heavy Parts { ONE-PIECE STEEL TANK

Large Pump
Heavy Uprights
Funnel Filling Spud
Extra Large Hood
for 6-in. Pot
Heavy Top Plate

NO COIL Genuine Imported **BURNER** (Silver Soldered)

MANUFACTURED SOLELY BY

PUMP IN BODY TORCH

"HOTTEST" Torch for GASOLINE

Price, net, $3.75.

7.00 net, Express Prepaid.

GEO. W. HEILAND Plumbers' Sundries 149-151 W. 35th ST. 99 BEEKMAN ST. NEW YORK

Factory, PATERSON, N. J.

cNab & Harlin Manufacturing Co.

Makers of

Best Drainage Fittings

in the world

Large stock in black and galvanized. Immediate deliveries
Automobile service between factory and New York

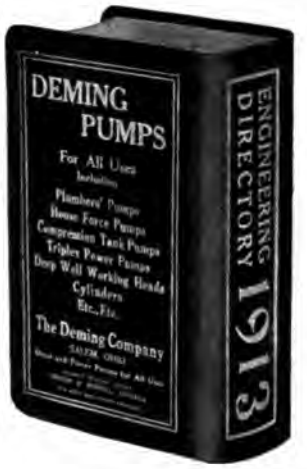
John Street New York

ENGINEERING DIRECTORY

For 1913. (20th Annual Edition)

Now Ready

Completely Revised



FOR MANUFACTURERS

Jobbers of Plumbing and Heating Supplies in the United States, arranged under States and cities.

Jobbers and Dealers in Mill, Steam, Mine, Heating and Lighting Supplies, Tools and Machinery, in the United States, arranged under States and cities.

Dealers in Plumbing, Heating, Lighting, Steam and Mill Supplies in Canada.

Wholesale Dealers in Hardware in the United States.

Wholesale Dealers in Electrical Supplies in the United States and Canada.

Manufacturers' Agents—Representing Manufacturers of Mill, Steam, Mine, Plumbing and Heating Supplies.

Purchasing Agents of the Principal Railroads in the United States, Canada and Mexico.

Architects in the United States.

Electric Lighting and Power Plants in the United States.

Gas Companies in the United States.

Waterworks Companies in the United States.

FOR JOBBERS AND CONTRACTORS

Classified Directory of Manufacturers of Plumbing, Heating, Lighting, Mill, Steam and Mine Supplies, Machinery and Tools, in the United States, giving over 50,000 trade names of specialties.

Alphabetical List of Manufacturers of Plumbing, Heating, Lighting, Mill, Steam and Mine Supplies, Machinery and Tools in the United States, giving home and branch offices.

Over 1,500 pages, 6⅞ x 3¾ inches. Leather Bound.

PRICE $5.00 PREPAID

For sale by

Merchant Plumber and Fitter Pub. Co.

200 Fifth Avenue, New York

THE partnership of John Fries and John Raffles, of Meriden, Conn., has been dissolved and the stock and fixtures have been taken over by Peter Pelisky, who will move the plumbing and tinning shop to Veteran St.

Mayor George M. Wright, of Worcester, Mass., has approved a contract with the A. Burlingame Co. for heating apparatus for the branch library which is to be erected in Greendale. The price is $975.

A. M. Smith, of Presque Isle, Me., has sold his plumbing business to the Allen Plumbing Co., Eugene Allen, proprietor, who will hereafter conduct the business.

Charles T. Eastman, of Falmouth, Mass., has severed his connection with the Folmouth Plumbing Co., having been in the employ of the firm for a number of years. It is understood that Mr. Eastman will engage in business for himself.

A recommendation for an appropriation of $1,000 for a new boiler for the heating plant of the Town Hall of Ware, Mass., is asked by the Selectmen in their annual report. The present boiler failed to pass the examination made by the State inspectors, and the Selectmen were notified that the boiler could not be repaired satisfactorily and that a renewal of the license to operate it would not be granted.

The Hall Plumbing & Heating Co., of Newburyport, Mass., is installing a vapor and steam plant in the new building now in process of erection at Dummer Academy.

A new sign has just been placed over the plumbing shop which has been recently opened on Center St., Shelton, Conn. It bears in large gold letters the name of A. E. Weiler, and it is attracting considerable attention.

M. E. Deal, of Amesbury, Mass., has a number of orders on hand for bathrooms which will be connected to the new sewer. Several jobs have been completed.

Leon McKellip, of Athol, Mass., has sold his plumber business to Arthur E. Totman, who has been in his employ for some years.

An examination for plumbers was held at the aldermanic chamber at Fall River, Mass., on March 15, in charge of J. C. Coffey, of Worcester; Edward Kelley, of Boston, and Charles Felton, of Brockton. There were 35 candidates for journeymen's licenses and five for licenses for master plumbers. One candidate came from Chicopee, another from Attleboro, two from Providence and the others from Fall River and New Bedford.

A bathhouse to cost $25,000 is proposed for Dane St. beach in Beverly, Mass. The park commissioners have asked for an appropriation of this sum for plans and for building such a house. The present bathhouse is too small.

Boston Master Plumbers Hold Thirtieth Annual Ball.

PAUL REVERE HALL, Mechanics' Institute building, Boston, Mass. upon the evening of Tuesday, March 25, was the scene of the 30th annual reception and ball of the Boston Master Plumbers' Association. There were upwards of 150 couples in attendance, and the experience of all was a mighty fine time.

To produce an evening of solid and satisfying enjoyment was the task of the several committees, and to their credit it must be said that their efforts were entirely successful in every respect.

It would take more than the rain and wind storm which precipitated itself at the hour the festivities were initiated to affect the attendance of the ladies and gentlemen who responded so gloriously to the invitations extended them.

P. J. SULLIVAN, PRESIDENT BOSTON MASTER PLUMBERS' ASSOCIATION.

JAMES S. CASSEDY, CAMBRIDGE, MASS., PRESIDENT MASSACHUSETTS STATE ASSOCIATION.

Strachan's capable orchestra had been engaged, and a preliminary concert was rendered by these musicians from 8 until 9, when the dancing began. Except for an hour about 12, the dancing was continuous from 9 P. M. till 1 A. M. Caterer Henry J. Seiler served the banquet, which was a very enjoyable affair.

Floor Director Orrin C. Poole was assisted by John W. Zerringer, Walter P. Jones, as well as the following gentlemen: John J. Vogel, F. F. Muldowney, E. W. Cox, L. P. Bresnahan, A. E. Touchet, R. F. Brown, Frank McCarron, James Gillespie, J. P. Riley, W. J. Nason, A. E. Roberts, A. Meltzer, Frank Connor, P. A. Lang and Charles Tucker.

In addition to National President Daniel G. Finnerty of a previous administration, the special guests of honor were State President James S. Cassedy, Cambridge, and State Secreary John J. Vogel, Boston, Mass.

The committee of arrangements embraced the following gentlemen, whose experience and discretion added to the smoothness and gayety of the evening: Orrin C. Poole, J. J. Vogel, A. F. Curtin, Frank B. Connor, James S. Cassedy, P. A. Lang, J. W. Zehringer, L. P. Bresnahan

. W. Stevens, secretary. The recep-ommittee members were N. J. Kelly, Finnerty, E. C. Kelly, Daniel Shan-. H. Cronin, T. J. Tute, A. F. Cur-avid Craig and J. C. Kelly.

uit for Plumbing Tuition.

HE suit of Charles H. McCarty, of Fall River, Mass., against Justin E. Reed has been settled in accordance a recent judgment of the District , the sum named being $50 and costs. uit was a rather unique one, as it was ht to recover for tuition given the dant by McCarty, who taught him ing. The plaintiff is in the plumbing ss and the defendant is manager of all River Steam & Gas Pipe Co. The ent recovered was for the full nt. I. X. Cuttle appeared for the iff and Frank A. Pease for the de-nt.

rovements at Fitchburg Post Office.

XTENSIVE repairs and improve-ments are to be made to the Fitch-burg, Mass., postoffice building and uipment as a result of the recent visit spector of Public Buildings Edwin W. on from the Boston office of the d States Treasury Department who in that city quite recently, making xhaustive inspection of the local ng. All of the postoffice buildings of overnment are built, owned and main-l by the Treasury Department, which s it a practise to keep the buildings in repair and supplied with modern ment.

pector Pierson went all over the local building, concerning himself chiefly the mechanical equipment, in which e is an expert. Many repairs and vements will be made as a result of isit, chief of which are the installa-of a hot water system, an extended ary lighting system on the floor and work rooms of the office, and exten-epairs to the entire plumbing equip-which has done duty ever since the ruction of the building and is now in need of repair.

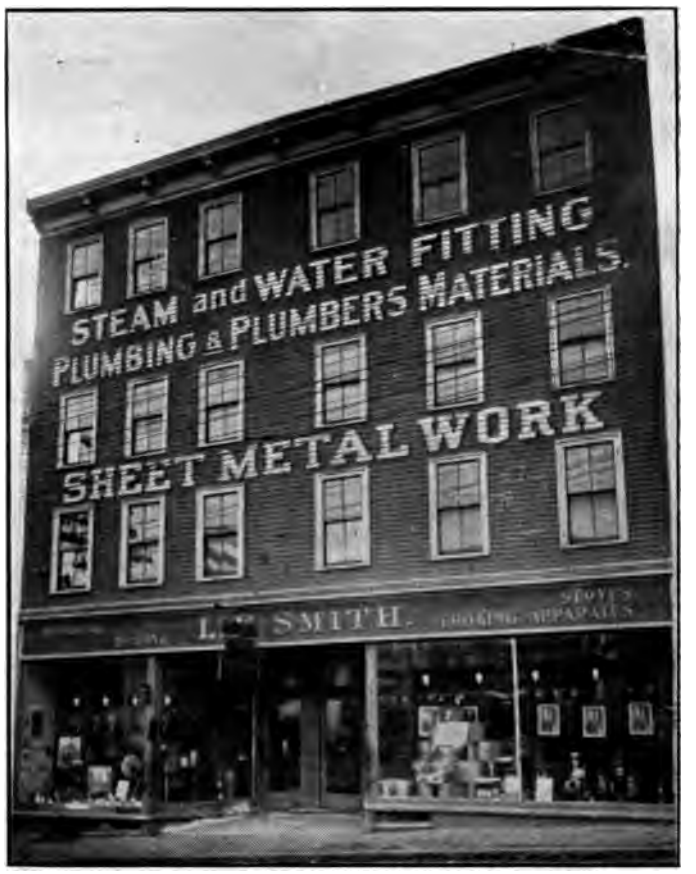
e building was equipped with a hot heater when it was built, but the ure was never piped for hot water. will now be supplied, and it is ex-l that the postmaster, as custodian of uilding, will soon be authorized to or bids for the work.

e overhead lighting system, in which leliers and incandescent lights on a ork of cords, have furnished all the ination on the floor of the office, was dered hardly equal to the increasing ess, which has necessitated the instal-of extra benches and tables from to time. Inspector Pierson stated he should recommend the installation n auxiliary electric system through every desk, bench and table on the will be equipped with lights attached andards from which the cords will down through the floor of the office, instead of from the chandeliers overhead.

The plumbing system is also needing considerable attention and many repairs will be recommended at once, while minor repairs will be ordered for the boiler and heating system. Other minor repairs for other parts of the mechanical equipment of the building will also be recommended, all of which will tend to increase the efficiency of the equipment and make the entire proposition much more satisfactory to the force of officials and employes who spend their working hours in the building.

A Busy New England Concern.

UNQUESTIONABLY the largest and best-equipped plumbing, heating and sheet-metal concern outside of Boston is the L. E. Smith Co., of Gloucester, Mass. Established many years ago, it was incorporated in 1909, with the following gentlemen as officers, viz.: D. Chester Tarr, president; Horace Tarr, vice-president, and Roger H. Tarr, treasurer.



VIEW OF THE PLUMBING AND HEATING ESTABLISHMENT OF L. E. SMITH, GLOUCESTER, MASS.

At 221 and 223 Main St. the company occupies an entire four-story building, a view of which is shown herewith. On the ground floor is located the immense retail department, wherein is carried a large and varied line of hardware and builders' supplies of all kinds, painters' supplies, mechanics' tools, fine cutlery, "ready-to-use paints," kitchen utensils of many kinds, and a complete line of the ever-popular Magee stoves and ranges.

The other floors of the Main St. establishment are utilized either for manufacturing or for storage purposes. The equipment comprises one of the most complete pipe-cutting plants in this section, enabling the concern to cut both large and small pipe. The company maintains a large and modern sheet-metal working plant, producing everything that can be made from sheet metal, copper and kindred supplies.

As plumbers, heating experts, roofers, etc., the L. E. Smith Co. is a recognized leader in that part of the State. Its facilities are such as to enable it to handle the largest and most intricate contracts, with an assurance that the specifications will be lived up to and the contract finished on time. The L. E. Smith Co. has been awarded many of the most important contracts, not only in Gloucester but also in many of the finest residences and buildings along the North Shore. In addition, the company has completed many large contracts at more distant points—in fact, taking contracts in any part of New England. During the season the concern has on its payroll a large number of men, who are employed on various contracts under way.

A Busy Gloucester Plumber.

WHILE in business on his own account only two years, John J. Casey, of Gloucester, Mass., has had many years' practical experience in his line, and is to-day a recognized expert in all that pertains to sanitation, ventilating and heating. He maintains splendidly equipped shops at 4 Short St.

He recently put in the entire plumbing work at Gloucester city hall,

A New Plumbing Inspector for Jersey City.

PATRICK HENNESSY has been appointed plumbing inspector by the Jersey City Board of Health. He will be paid with the money saved on the salary of Dr. John J. Magner, who has resigned as inspector of bakeries and head of the bureau of complaints. Dr. Magner was paid $1,200 a year. He has moved to Hackensack.

Progressive and Enterprising New Jersey Plumbers.

TWENTY years ago the firm of Renker Bros., 127 Danforth Ave., Jersey City, N. J., was inaugurated by George Renker, senior member of the firm, since which time progress and enterprise have placed them at the head of the plumbing and heating profession. Important contracts in quantity have been successfully handled by these experts, and their business has indeed been a lucrative one in every respect.

We are able to show in the accompanying picture one of their autos as it returned from one of their contracts. By no means does this show their entire working force. The assistants in the picture are those engaged upon this special piece of work referred to. George Renker stands in front of the motor truck. Upon his left is a brother not connected with the plumbing business. He is the head of the jobbing house known as Walter P. Renker & Co., dealers in plumbers' supplies. Always handy with pencil and pad, he is continually upon the qui vive to write up orders for all kinds of supplies.

The auto pictured was remodeled, new body built, and painted by George Renker, which evidences his class as a mechanic in any line. The young gentleman to the left of W. P. Renker is Charles Agneau's young and promising son—some say a chipper chip from the old block.

HOW THE RENKER BROS., OF JERSEY CITY, START THEIR MEN OFF ON THE JOB.

Plumbers' Fee Changed to $25.

THE new plumbers' ordinance for Atlantic City, N. J., was amended and passed to second reading March 6 by the commissioners. It now provides for $25 annual fee from each master plumber or such firm; that the licenses must be issued by an examining board, of which one member must be a master plumber of 10 years' experience and another a journeyman of five years' experience.

Richard P. Albertson appeared before the commissioners representing the association, and advocated the charging of the $25 fee.

Employers and Employes Fraternize.

THE employes of Archie Height & Bro. of Allenhurst, N. J., were recently very nicely entertained at their sixth annual banquet. After participating in all the good things of the season at Sanborn's banquet hall, they were further entertained at the Savoy Theater, where they witnessed the drama entitled "The Battle," given by the Chicago Stock Co.

The employes were 12 in number and, besides the firm members, there was an invited guest, William Weinacht, who represents the Walls, Owen & Stambach Co.

His Incubator Fails as Adding Machine.

THE fact that a man is a plumber is no sign that he can hatch chickens. Also it has been discovered by Michael R. O'Brien, of 242 12th St., Jersey City, that, while a body may have expert knowledge of how to wipe a joint, one must be some engineer to run an incubator.

O'Brien has no engineer's license, so he will never again fool with machinery; that is, with the kind designed to be the artificial foster parents of a brood of chicks.

O'Brien, who is a well-known plumber of the Horseshoe section of Jersey City, and who lives next to Public School No. 21, on 12th St., has some chickens of which he is very proud. So proud was he, in fact, of the special breed he had acquired that he decided to hatch an extra batch for the coming Spring.

An incubator was purchased, and the eggs of his prize hens, which O'Brien had been saving for weeks, were put into the machine three weeks ago.

The Horseshoe was all agog and waited anxiously the day when the hatch would arrive. The suspense was awful.

Saturday the baby birds were several days overdue, and O'Brien, who was personally conducting the germinating of the chicks through the various stages of incubation, decided to investigate.

Alas! Forty good eggs had gone into that hen hatcher and 40 bad eggs came out. And not a chicken in the lot.

"For egg is eggs an' hatch they mus',
But an incubator is an incubus."

So sang O'Brien as he bundled up the poor 40 dead eggs. Out into the back yard they went, and out after them went that which had once held forth promise of becoming the parent of as beautiful a flock of birds as grace the Horseshoe to-day. No more wooden hens for O'Brien. In future he will stick to the common or barnyard variety, and pass up the patented or hardware store kind.

O'Brien's friends are wondering what caused the hatch to fail. Some say that he attempted to heat the eggs by means of a gas lamp, and that the birds were stifled in their infancy. Others say the chicks were frightened to death by the shouts of the children playing in the courtyard of No. 21 school.

Two Well-Known Labor Leaders Start for Themselves.

CHARLES M. WHELEN, of S. Broad St., and Frederick P. Covert, of 126 Williams St., well-known plumbers of Trenton, N. J., have joined partnership. The firm will be known as the Whelen & Covert Plumbing Co. Messrs. Wheeler and Covert have been active in local labor circles for the past several years. Their withdrawal from Local No. 236, Plumbers'

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Union, will mean that the plumbers' organization will lose two of its hard-working members. They have been instrumental in securing the success of the social affairs of the plumbers' local and have helped to settle many disputes arising between the master plumbers and the journeymen.

Mr. Whelen has been connected with the F. S. Katzenbach Co. for nearly 20 years. It was through his efforts that the plumbers' union in that city was organized. He was the first president of the local organization and held that office for several years. Mr. Whelen has passed through the several offices of the local and now occupies the position of treasurer. Probably there is not another labor man in Trenton that has more honors than the new master plumber. He has served as a delegate to the New Jersey State Federation of Labor from the Mercer County Central Labor Union and represented his organization at the last national plumbers' convention in Toronto, Canada. Mr. Whelen was also a delegate to other national conventions of plumbers held at Indianapolis, Indiana and St. Paul, Minn.

Mr. Covert, the other member of the firm, has been a lifelong comrade with his new associate. The former has severed his connection, after working four years, with John B. Boyd, the plumber. The junior member of the new firm has a long, active labor career. He has been a representative of the State Association of Plumbers, Steam and Gas Fitters' organization and of the New Jersey State Federation of Labor Conventions, and for five years has been financial secretary of local plumbers' union. At present he is recording secretary of the organization. Messrs. Whelen and Covert are delegates to the Mercer County Central Labor Union from Local 236. They have applied each for a withdrawal from their union, which will take effect April 24. The new firm will locate at 1126 S. Broad St., near Liberty St.

Liddell & Mann, of McAlester, Okla., have been awarded the plumbing contract for the Carnegie Library building by the general contractor. They now have contracts for the plumbing, heating and vacuum cleaning, the last two being awarded to them at the general awarding of contracts.

DELAWARE and HUDSON CO.

ADVANTAGES OF AN INDUSTRIAL LOCATION

This railroad extends from the coal fields of Pennsylvania to connections with all the great railroads of Canada and the Eastern trunk lines; provides a fast freight service to the East, West, North and South, and parallels the upper Hudson River, also the new two-thousand ton barge canal connecting the river with Lake Champlain, now being built by the state. An establishment located in this territory receives the benefit of cheap fuel, electric power and low freight rates.

Its Industrial Department will aid in the establishment of industries, develop side track questions and give complete information.

IRA H. SHOEMAKER
INDUSTRIAL AGENT

Albany, N. Y.

SPECIAL NOTICE

50c. for 25 words or less.
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FOR SALE—A first-class plumbing business located in East New York, Borough of Brooklyn, N. Y., at a reasonable price; a complete stock; death of proprietor the reason for sale. Address "E. F. R.," care Merchant Plumber & Fitter Pub. Co., 200 Fifth Ave., New York City.

WANTED—Accounts with manufacturers on a popular line of brass goods and fittings for the New England territory; best of references; on a good proposition would guarantee accounts. "J. H. L.," care Merchant Plumber and Fitter, 200 Fifth Ave., New York City.

SALESMAN WANTED for each State and Local District. One having experience and acquaintance with plumbing trade to take out excellent line specialties and fittings. Good offer to live competent man. Address "HUSTLER," care Merchant Plumber and Fitter, 200 Fifth Ave., New York City.

REPUTABLE and successful manufacturer's agent desires an additional soil pipe and fittings, stop cock, gate valves and pottery account. Address "J. L. P.," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York City.

Sell your surplus couplings and fittings. Write us what you have to dispose of. THE A. & J. MANUFACTURING CO., 561 W. Lake St., Chicago, Ill.

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selling in New York, New Jersey, Pennsylvania and New England, desires connection with manufacturers of the following lines: Brass, malleable fittings, soil pipe and fittings, tanks and seats; well acquainted with principal jobbers in above mentioned territory, and have sold them for years. Address "Immediate," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York.

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OBITUARY

Horace N. Hatch, Boston, Mass.

Horace N. Hatch, for 47 years a resident and business man of South Boston, retired plumber and well known in Masonic and other fraternal circles, died at his home, 116 Dorchester St., after an illness of two months. He is survived by his wife and one son, Walter H. Hatch.

He was born in Jefferson, Me., and learned the plumber's trade in Damariscotta, Me. In 1886 he removed to South Boston, where he lived ever since, with the exception of two years' absence.

He first worked for S. E. Thompson and later was in Cambridge. In 1868 he returned to South Boston and with his brother, M. L. Hatch, purchased the business of S. F. Thompson, and soon afterward Horace bought his brother's share. He then conducted the business at 130 W. Broadway until three years ago, when he retired.

He was a member of the South Boston Citizens' Association, of Bethesada Lodge and Mt. Washington Encampment, I. O. O. F.; St. Paul's Lodge, A. F. & A. M.; St. Matthew's R. A. Chapter, and St. Omer Commandery, K. T., and was for several years trustee of the St. John's M. E. Church. He was a 32d-degree Mason.

Allan Gilmour, Albany, N. Y.

Allan Gilmour, Albany's oldest master plumber, died at his home on 1st St. March 19. Mr. Gilmour had conducted a plumbing shop on Orange St., between Broadway and Pearl St., for upwards of half a century. He was born in Scotland and came to this country when a young man. He was prominent in the affairs of the Scotch residents of Albany, being a past president of St. Andrew's Society and the Albany Curling Club.

He was one of the big six of curlers in the Curling Club 25 years ago, when curling formed one of the principal Winter diversions and the club had its own rink on Bridge St. The other famous curlers of his day were Thomas McCredie, Andrew McMurray, Alex. Simpson, William Manson and Peter Kinnear.

Mr. Gilmour took a deep interest in church work, and up to the time of its merger with the Second Presbyterian Church was an officer of the old Third Presbyterian Church, having served on its board of trustees for more than 40 years and for a number of terms as the board's president. Since the consolidation of the churches he had been a trustee of the Second church.

In 1906 Mr. Gilmour was the president of the Albany Master Plumbers' Association. He was a brother of Neil Gilmour, of Ballston Spa, who served as State superintendent of public education from 1874 to 1883. Mr. Gilmour is survived by a son, A. A. Gilmour.

Daniel N. Donoghue, Butte, Mont.

Daniel N. Donoghue, one of the best-known plumbers of Butte, died at an early hour on the morning of March 18 in his room at the Northern Hotel on Front St., where he had been stopping for some time. Typhoid pneumonia was the cause of death. He had the best of medical attention and the best of nursing, and until very near the end hopes were held out for his recovery on account of his strong constitution and brave fight for life.

It was just a month ago that he celebrated his 40th anniversary. He was born in Springfield, Mass., and after learning the trade of plumbing started out to see the country. He worked in most of the big cities and came to Butte about 15 years ago. While he had been away off and on, he had considered Butte his home.

Mr. Donoghue was single. The only relative he leaves in Butte is his brother, M. M. Donoghue, president of the Montana Federation of Labor. Another brother, John, is in Beaudette, Minn. He formerly lived in Butte. His father, Malachi Donoghue, now well along in years, lives at New Haven, Conn.

William Henry Dewar, Belleville, N. J.

After a brief illness William Henry Dewar died in the Flower Hospital, New York City, on Sunday afternoon, March

THE LATE HENRY DEWAR, OF BELLEVILLE, N. J.

30. On the previous Sunday he was taken ill, but on Monday went to his office in New York, where he was the head of the sanitary division of the Department of Education, New York City. While there he was attacked with appendicitis and was taken to the hospital, where an operation was performed; but this proved of no avail, and he died on the following Sunday.

Mr. Dewar was born in Scotland about 65 years ago. He came to the United States at an early age and for some years engaged in business as a master plumber. He retained his membership in the Manhattan branch of the Association of Master Plumbers of New York City until his death. As a young man he took an interest in military matters and became captain if the Eighth Regiment of the New York State Militia. He was also the instructor in the plumbing class in the New York Trade School in the early days of his usefulness.

Mr. Dewar is survived by his widow, a son and a daughter and two sisters.

H. E. McCarty, Tuscaloosa, Ala.

H. E. McCarty, a well-known citizen of Tuscaloosa, Ala., died Sunday morning, March 9, at his home on 13th St. in East End after a brief illness. Mr. McCarty was well known and very popular in Tuscaloosa and has been engaged in the plumbing business there for many years. Prior to opening up his business in Tuscaloosa he was connected with the Alabama-Bryce Hospital. He is survived by his widow, a son, Eugene McCarty, and two daughters.

Carl V. Baumann, Newark, N. J.

Carl Valentine Baumann, a Newark police commissioner, died Feb. 28 of acute diabetes at his home, 385 S. 10th St., that city. Mr. Baumann was born in Germany in 1853 and when he was 13 his family moved to Newark. He entered the plumbing business after learning the trade. He was elected to the New Jersey Assembly in 1896, and three years later he was elected a member of the Newark Board of Works, and in 1904 he became president of the board. Mr. Baumann was associated with many social and fraternal organizations. He is survived by his widow, two sons and two daughters.

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Incorporations.

THE Laurel Plumbing & Metal Co., of Laurel, Ala., has been incorporated with a capital stock of $10,000. The incorporators are Robert McCormick and C. D. Hill.

The firm of Leach & Thompson, of Spencer, Ia., has been incorporated, and the name of the company will be Leach, Thompson & Co., J. C. O'Brien having purchased a portion of the plumbing stock.

A certificate of organization was filed Feb. 27 for a company to be known as the Steward & Marston Co. to engage in the plumbing business, at Skowhegan, Me. The capital stock is $25,000 and the par value of shares $100. The officers of the company are: President, Ben. T. Stewart; treasurer, Clair Marston; directors, Ben. T. Steward, Clair Marston and Charles R. Oliver.

A deal was recently closed whereby Joe Bernert becomes proprietor of the plumbing business of A. F. Braun, of Racine, Wis., taking immediate possession.

The firm of Ball & Neal, doing business at Jefferson City, Miss., as heating and plumbing contractors, is being reorganized and will be incorporated.

The Robert Murray Co., Inc., Boston, Mass., has been organized to deal in plumbing material with a capitalization of $50,000. The incorporators are R. Murray, West Roxbury; L. E. Fitzpatrick, Medford; J. A. Grant, Everett.

The Double Blast Mfg. Co., Waukegan, Ill., manufacturer of plumbers' furnaces, has increased its capital stock from $6,000 to $15,000. Plans for a new plant are under consideration.

The Sanitary Equipment Co. has been organized at Trenton, N. J., under the management of James D. Brady, recently associated with the Hudson Boiler Co., New York City. The company has secured offices in the Broad St. Bank building and will represent manufacturers in the east, among which are the Resolute Pottery Co., Trenton; the Eclipse Seat Co., New York City; the Athol Pump Co., Athol, Mass.; the Hillen Brass Co., Louisville, Ky., and the Acme Mfg. Co., Bangor, Me.

The Union Sanitary Mfg. Co., of Syracuse, N. Y., with a capital of $50,000, was incorporated with the Secretary of State March 10. The company proposes to deal in wood and metal hardware and plumbing supplies. The directors are: Dan Bullard, of Albion; Leslie Unckless, Jacob R. Buecheler, William A. Buecheler and Frank G. Hyland, all of Syracuse. Mr. Bullard holds 10 shares of stock, Mr. Unckless and W. A. Buecheler five shares each, J. R. Buecheler two shares, and one share each is held by Harry J. Umbehend, Daisy M. Lee and Arthur H. Bullard.

The Henry Dunker Plumbing & Heating Co., 414-416 W. 3d St., Davenport, Ia., changed hands March 10, when Harry B. Housman and R. W. Rick purchased the interest of Mrs. Hery Dunker. The company is reorganized under the same name. Mr. Housman is now president, secretary and treasurer, and Mr. Rick is vice-president and general manager. The new owners have taken possession of the business and stock.

CLEAN HANDS

Gre-Solvent instantly dissolves and removes from the hands all kinds of machine-grease, grime, etc. Write us for special proposition regarding the sale of Gre-Solvent.

1 lb. Can 10c. 3 lbs. 25c. 6 lbs. 50c. 13 lbs. $1.00

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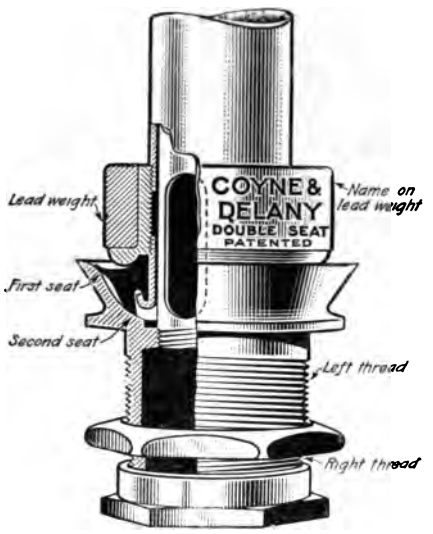
CABLE ADDRESS GLAUBERSPECIALTIES

A New Double Seat Valve.

THE Coyne & Delaney Co., 828-834 Kent Ave., Brookiyn, recently placed on the market its new patented double seat valve, with which its well-known C. & D. tanks are now equipped.

The makers state that their valve is absolutely tight and will positively prevent dripping, because they use a special shaped



washer that has two separate and independent seats, which, owing to the flexibility of the rubber, conform to the shape of the valve. Another valuable feature is that the washer, while easily removed or replaced, cannot pull off. In the double seat valve they do away with the troublesome guide rods and use telescope tubes exclusively, which facilitates repairing.

The Coyne & Delaney Co. is sending a display card to the trade, printed in three colors, and if any of our readers have been overlooked in the distribution they can obtain one by writing to above concern and mentioning the MERCHANT PLUMBER AND FITTER.

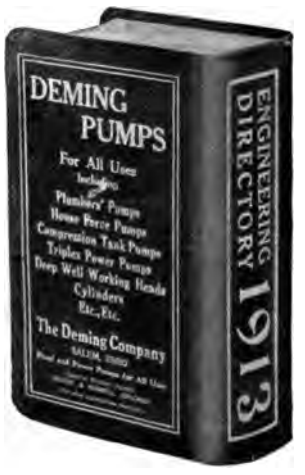
Directory of Manufacturers and Jobbers of Plumbing and Heating Supplies.

THE 20th annual edition of the "Engineering Directory" is now on the market—a great improvement over any previous edition. The work of revision began as soon as the 1912 edition was issued, was kept up steadily and continued until the last section had gone to press. Many changes have occurred during the present year; new firms have come into existence and old ones have gone out or changed their addresses.

The aim of the publishers of the "Engineering Directory" is to keep up with the times and furnish a volume which will be of real value in the manufacturer's selling campaign, and as a reference book and purchasing guide for the dealer. The section devoted to the products of manufacturers contains approximately 4,000 classifications. The 1913 edition contains:

1. Jobbers and dealers in mill, steam, mine, heating and lighting supplies, tools and machinery in the United States.
2. Jobbers of plumbing, steam and gas-fitting supplies in the United States.
3. Dealers in plumbing, steam and mill supplies in Canada.
4. Wholesale dealers in hardware in the United States and Canada.
5. Manufacturers' agents, representing manufacturers of mill, steam, mine, plumbing and heating supplies.
6. Alphabetical list of manufacturers of plumbing, heating, lighting, mill, steam and mine supplies in the United States.
7. Classified directory of manufacturers of plumbing, heating, lighting, steam and mine supplies in the United States.
8. Purchasing agents of the principal railways in the United States, Canada and Mexico.
9. Leading architects in the United States.
10. Gas companies in the United States.
11. Waterworks companies in the United States.
12. Cement mills in the United States.
13. Trade associations and their officers, declaration of principles and list of members of the American Supply and Machinery Manufacturers' Association.
14. Cross index to manufactured articles classified in the directory.

The price is $5, delivered by prepaid express. The book is bound in genuine leather, handy size (4x6¾), contains 1,540 pages, with thumb indexes and a complete



cross index to approximately 4,000 articles listed.

For sale by the Merchant Plumber & Fitter Publishing Co., 200 Fifth Ave., New York.

OHIO NOTES.

A NEW plumbing concern has been incorporated at West Lafayette, O., with a capital of $10,000. The directors are Albert E. Bradbury, Samuel F. Martin and Earl R. Cass.

At a conference held March 5 in the Savoy Hotel by the Master Plumbers' Association and the Plumbers' Union of Cincinnati, O., it was decided by the employers to give the plumbers an increase of $2.50 per week beginning May 1. The plumbers at present receive $25 per week. The new contract includes the sympathetic strike clause which for some time did not meet with the approval of the bosses.

Plans were completed for the erection of a new bath house in the rear of the Country Club at Coshocton, O., and it is expected that work will be started immediately on the new structure.

The Ricker Plumbing & Heating Co., of Canal-Dover, has been incorporated by Harrison L. Ricker and others. Capital, $10,000.

The Columbus Hot Water Heating Supply Co., of Columbus, O., has been incorporated for a general plumbing hot water heating plant. Capital stock, $10,000. Incorporators: J. F. Baird, Frank A. Kropp, Wm. A. Distelhorst, F. W. Distelhorst and J. W. Rice.

The Roberts Plumbing Co., of Columbus, O., has been awarded the contract for the pluming and sewage for the Westwater Building on Front St. The Ohio Elevator and Machine Co. will install the elevator.

Plans have been drawn up by the city of Montreal, Canada, for public baths on Rielle St., Emard Ward. No call has yet been made for tenders, but the cost is estimated at about $25,000.

Conscience Money.

ABNER WEINBERG, of the Weinberg Plumbing & Heating Co., 15 Holmes St., Youngstown, O., was surprised when he opened his mail recently to find two $2 bills enclosed in an envelope with a note explaining that the money was tendered in lieu of property taken from the Weinberg shop some years ago.

The letter was posted at Youngstown, March 5, 1913, and was as follows:

"Mr. Weinberg: I am sending you $4 for stuff I took from your shop when I worked for you years ago. I have to do this to clear my conscience. I think the money will pay for it. I do not know the prices of it. A FRIEND."

Mr. Weinberg stated that he will place the letter in a frame for a keepsake. "If the man would only give me his name, I would send him a receipt," he stated. Mr. Weinberg is of the opinion that some fellow who has recently been converted to religion sent the money.

Notes from Hastings, Neb.

RUTHERFORD BROS. have been awarded the plumbing contract for the Masonic Temple.

J. B. Kline is placing new fixtures in the F. C. Babcock residence this week.

P. E. McCoy has completed the plumbing of the A. W. Hall residence, 1418 W. 6th St.

A plumbing job for George Meininger was completed last week by P. E. McCoy.

P. E. McCoy recently shipped a complete bathroom outfit to a farmer living near Juniata.

MERCHANT PLUMBER AND FITTER

DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUM CLEANING

Published Semi-Monthly at 200 Fifth Ave., New York, N. Y.

NEW YORK, APRIL 25, 1913.

By the Merchant Plumber and Fitter Publishing Co.

Germantown Avenue, in the heart of the old residential section, one of the old homes inherited from the Revolution. In front of this house Washington and his officers held a council of war during the Battle of Germantown, seven miles northwest of City Hall.

One of the sights in Philadelphia where the Thirty-first Annual Convention of the National Association of Master Plumbers will be held in June.

COST ACCOUNTING FOR PLUMBERS' STOCK ORDER BOOK.

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitter.

AS a means of mutual protection to the plumber and the supply house, no goods should be ordered of the supply house verbally or written on a sheet of the regular stationery, but should be made out on a regular order form, as in Fig. 8.

ENERGETIC PRINTING COMPANY
44 NORTH FOURTH STREET
PHILADELPHIA

DELIVER NO GOODS WITHOUT A WRITTEN ORDER

No. 225 *Philadelphia,* .....

PUT ABOVE ORDER NO. ON YOUR BILL .....

Please send us .....

Fac-simile of Our Order Book, greatly reduced

ENERGETIC PRINTING COMPANY
PER .....

FIG. 8—DUPLICATE ORDER BOOK.

These order blanks should be made up in duplicate form and padded or bound in a book, numbered and with loose sheets of carbon paper.

The original order should be sent to the supply house and the carbon copy filed away or retained in the order book until the goods arrive, when they should be checked up with this copy to see that they correspond in every particular. Also at the time of making out the order a notation should be made on the carbon copy, stating for whom or for what job the goods are ordered. When ordering goods over the phone the supply house should be advised what order number they should enter on their bill, a notation of the goods ordered should be made on the duplicate order blank bearing this number, and the original copy may be destroyed or marked "confirming phone order" and mailed to the supply house, whichever method being the most convenient or desirable.

The advantages of using a duplicate order book are many. It gives you a duplicate record of your goods ordered. It prevents over or under deliveries. It prevents unauthorized persons from obtaining material in your name. It eliminates all chances for disagreement and gives a clear record of all transactions. It is also more systematic.

Many times all the material for a job is not ordered at once. It will be ordered as needed on the job in order not to pile in a lot of material that will have to be paid for a long time before it is necessary to have it on the job. With the duplicate order book one has an exact copy of what has been ordered, and this will prevent one from overlooking or ordering more material than is required on a job.

INVOICE JOURNAL.

When checking up the invoices for material purchased from the supply houses it is always advisable to mark on one side of the bill the name of the customer or what job the materials were purchased for. This may save from neglecting to charge the material to the proper job and makes a quick reference for locating at any time what particular class or style of goods was used on some particular job and the price paid for same.

As the bills for materials purchased are approved and the prices and extensions checked, they should be filed in a temporary binder until the end of the month. The ordinary letter-box file, that can be purchased in any stationery store for about 30 cents, makes a good temporary binder for the current month's bills, as the bills can be filed alphabetically. At the end of the month the bills should be gathered together, each supply house's bills by themselves, and a statement or voucher listing the date and amount of each separate bill and the total of the month's purchases should be credited in the invoice journal to each supply house bought from during the month and charged to the merchandise account or expense, as the case may be.

A columnar book, that can be purchased at any stationery store for about $1, can be used to advantage for an invoice journal, as in Fig. 9.

PURCHASE JOURNAL FOR MARCH, 1913.

Voucher.	Date.	Names	L. F.	Amount.	Merchandise.	Expense.	Horse & wagon.	Rent.	Sundries
No. 1	3/31	Colwell Lead Co...	80	$25 00	$25 00	.. ..	.. ..	.. ..	.. ..
" 2.	"	Energetic Ptg. Co.	85	10 00	.. ..	$10 00	.. ..	.. ..	.. ..
" 3.	"	Excelsior Stables..	92	30 00	.. ..	.. ..	$30 00	.. ..	.. ..
" 4.	"	IXL Pump M. Co.	75	35 75	35 75	.. ..	.. ..	.. ..	.. ..
" 5.	"	McMann & Taylor	81	130 50	110 50	20 00	.. ..	.. ..	.. ..
" 6.	"	J. Simmons Co....	64	100 00	85 00	.. ..	.. ..	.. ..	Tools. $15 00
" 7.	"	So. Side R. E. Co.	50	25 00	.. ..	.. ..	.. ..	$25 00	.. ..
" 8.	"	Speakman Sup. Co	76	30 85	30 85	.. ..	.. ..	.. ..	.. ..
" 9.	"	Trenton Potteries.	94	155 00	155 00	.. ..	.. ..	.. ..	.. ..
" 10.	"	L. Wolff Mfg. Co.	68	75 00	75 00	.. ..	.. ..	.. ..	.. ..
		Total		$617 10	$517 10	$30 00	$30 00	$25 00	$15 00

FIG. 9—PURCHASE JOURNAL.

SUMMARY.

Merchandise	$517.10
Expense	30.00
Horse and wagon	30.00
Rent	25.50
Tools	15.00
Total	$617.17

After the bills have been entered in the invoice journal they should be filed away, either in letter-box files, Shannon filing cases or vertical files, keeping all the bills from each supply house together for the whole year for quick reference.

COST PRICE RECORD.

It is necessary to have some sort of a price record conveniently at hand, so that one can find any price required without loss of time. Of course, a business man always has access to his correspondence files containing letters of quotations, and presumably has within reach a complete line of catalogues and discount sheets, covering all lines of goods used by his concern; but in these days this is too slow, and not at all times convenient. Reference to letters and catalogues requires too much time.

With the card system little trouble will be experienced in arranging price records which are easily accessible as well as reliable, and because of their fluctuating character flexible devices must be used. It is best to arrange the price record cards with regard to articles, rather than the names of the firms making the quotations. A card should be headed with the name of the article, as in Fig. 10, showing the names of the different firms making the quotations, with date of quotation, prices or discounts, etc.

Cast-Iron Fittings.	Date.	Price or Discount.
John Simmons Co.	3/12/13	60%
McMann & Taylor Co.	3/14/13	55-10%
W. H. Hussey & Son	3/14/13	50-10%

FIG. 10—PRICE RECORD CARD.

These cards are filed in an alphabetical index, according to the name of the article or according to certain classes of materials or supplies, as "Wash Trays," "Wash Tray Fittings and Connections," would be filed after "W" behind a guide labeled "Wash Trays and Connections," and would be subdivided into "All-Porcelain Wash Trays," "Soapstone Wash Trays," "Cement Wash Trays," "Enam. Iron Wash Trays," "Wash Tray Connections," etc.

As new quotations, discounts or prices are received, they are entered on its proper card, both sides of the card being used, if necessary. Also new prices from invoices can be copied on these cards for quick reference. The advantages of such a system can scarcely be overestimated. For making up estimates one has a ready reference of all prices at hand. If a traveling salesman calls and quotes a price on a certain line of goods, the master plumber has but to open the drawer of his desk, where

FIFTY-Four years of consistent effort to produce the best Sanitary Ware ought to show in the product.

How well the fifty-four years, during which we have been making White Vitreous China Sanitary Ware, have been turned to account is not for us to say, but—our products are featured by the leading supply houses throughout the land, and we operate the largest individual plant in the country.

"The Anchor There means Quality Ware"

Thomas Maddock's Sons Co.

Oldest Sanitary Potters in America

Trenton, N.J. U.S.A.

he has in his card index price file a record entered of all quotations which he has received from other houses. He can also make at the same time on his price card a record of the quotations given by the salesman, instead of simply making a memorandum and filing this in a pigeon hole of his desk, where it is soon forgotten. Also, when an invoice is received for a bill of goods he can compare and check the prices with the last quotations, and any overcharges can quickly be detected.

The buyer who knows is the one who obtains the lowest quotation, for the dealer is quick to appreciate that fact when prices are being compared and checked, and when overcharges are brought to his attention is more careful to give his lowest competitive prices and best discounts.

LETTER COPY BOOK AND FILES.

Copies of all letters or estimates sent out should be retained for future reference. The old method was to write letters by pen or typewriter, and copies were made in a letter-copying book by the use of the old-fashioned screw letter press and damp blotter or cloth. This letter book was then indexed for ready reference.

Since the advent of the vertical file and the more general use of the typewriter, better methods have been adopted. One method is to have all letters typewritten and a carbon copy made while writing. The objections to this method are that any corrections made on the original do not always appear on the carbon copy, and also the carbon copy does not contain the signature of the party signing the original letter, although this can be overcome if care is taken to see that all corrections on the original letter are also made on the carbon copy and by the writer signing both the original and carbon copies.

Another method is to have the original letter typewritten, and after all corrections are made and the letter signed copies of the letter are made on a roller press copier, which ensures copying everything that ought to be copied, giving it a legal standing, every correction made at the time of signing appearing on the copies and also locating the responsibility for signatures. The copies are made on a continuous sheet of tissue paper, which when removed from the reel of the roller copier is cut into proper lengths, each letter on a separate sheet.

In either the carbon copy system or the roller copier system the loose sheet copies of the letters are filed in vertical files. A folder is used for each regular customer or correspondent, and in this folder is filed all of the correspondence received and the copies of all letters sent to that particular customer. The advantage of the vertical file is that you have all the correspondence to or from any particular customer over a long period all in one folder, convenient for quick reference. No searching from page to page, or from one letter copy book to another, as in the old-fashioned screw letter press copy book. Only one possible place to put any letter and only that one place to look for it, now or 10 years hence. One drawer of a vertical file usually furnishes sufficient capacity for the ordinary correspondence of a small business or a jobbing plumber.

The Eggs That Never Hatch.

THERE'S a young man on the corner,
Filled with life and strength and hope,
Looking far beyond the present,
With the whole world in his scope;
He is grasping at to-morrow,
That phantom none can catch;
To-day is lost. He's waiting
For the eggs that never hatch.

There's a world of men and women,
With their life's work yet undone,
Who are sitting, standing, moving,
Beneath the same great sun;
Ever eager for the future,
But not content to snatch
The present. They are waiting
For the eggs that never hatch.

The "Ten Demandments."

Editor MERCHANT PLUMBER AND FITTER:

ENCLOSED please find a copy of the "Ten Demandments," which I ran across in a plumbing shop in Florida, while on a trip south last year.

These "Demandments" struck me as being very good, and I thought it would make good reading matter if you cared to use it.

Yours truly,
AMBROSE B. DELANY.

Brooklyn, N. Y.

1. Don't lie. It wastes my time and yours. I am sure to catch you in the end, and that is the wrong end.

2. Watch your work, not the clock. A long day's work makes a long day short, and a short day's work makes my face long.

3. Give me more than I expect. I will give you more than you expect. I can afford to increase your pay if you increase my profits.

4. You owe so much to yourselves you cannot afford to owe anybody else. Keep out of debt, or keep out of my shops.

5. Dishonesty is never an accident. Good men, like good women, never see temptation when they meet it.

6. Mind your business, and in time you will have a business of your own to mind.

7. Don't do anything here which hurts your self-respect. An employe who is willing to steal for me is willing to steal from me.

8. It is none of my business what you do at night. But if dissipation affects what you do the next day and you do half as much as I demand you'll last half as long as you hoped.

9. Don't tell me what I'd like to hear, but what I ought to hear. I don't want any valet to my vanity, but one for my money.

10. Don't kick if I kick. If you're worth while correcting, you're worth while keeping. I don't waste time cutting specks out of rotten apples.

Big Plumbing Contract Awarded to James Smyth Plumbing & Heating Co., Spokane, Wash.

THE plumbing contract for the new Davenport Hotel was let recently by the Brayton Engineering Co. to the Smyth Plumbing & Heating Co., of Spokane, Wash., at a price said to be $105,000.

The awarding of this contract is in accord with the policy of the general contractors towards local concerns, giving them preference wherever possible. This is regarded as the largest exclusive plumbing contract ever let in the Pacific Northwest and is a tribute to the facilities and equipment possessed by a local firm when placed in competition with other contractors from the leading cities throughout the United States.

In speaking of the new work to a representative of the MERCHANT PLUMBER AND FITTER James Smyth, the president of the company, had this to say: "We are naturally pleased in receiving this award and keeping this work here at home. Some idea may be gathered of the magnitude of this contract by enumerating a few of the items comprised in the installation. Altogether there will be 1,115 separate fixtures, including 333 toilets, 403 basins, 270 bathtubs and 30 showers, not to mention the number of sinks, etc. All bathtubs will be of the recess type and 'A' grade solid porcelain. These, as well as all lavatories and fixtures, will be strictly sanitary and first class, and altogether the entire installation will be equal to that found in the best hotels in the country.

"Materials ought to begin to arrive after June 1, although we will get busy on preliminary sewer work some time before that."

The Smyth Plumbing & Heating Co. has been established in business since 1901, its first location having been in the building which is now being torn down for the Milwaukee Road, the northwest corner of Trent Ave. and Howard St. James Smyth is president and H. B. DeLong secretary and treasurer.

Among some of the company's notable contracts heretofore executed were the Old National Bank building, the Columbia building, the Fernwell building, Traders' National Bank building, the Blolock block, Realty building, Elks' Temple, W. W. P. Co. office building and the Eiler building.

Joseph A. Vogel Co. Opens Up a Branch at St. Louis.

THE Joseph A. Vogel Co., manufacturers of the "Vogel" patent frostproof closet, at Wilmington, Del., has established a branch warehouse at St. Louis, Mo., which will be in charge of Francis J. Vogel. A complete stock will be carried at this point, in order that the company's western trade may be served without delay. A similar branch was established some time ago at Baltimore, Md., in charge of Wm. T. Casey. The growth of this company's business has been so great that a two-story concrete and brick addition is being built. This will just double its present floor space.

Moved to New Business Home.

GEORGE R. STONE has moved his plumbing establishment from 1009 15th St. to 1007 16th St., Altoona, Pa. Mr. Stone has been a long time on 15th St. and regretted to leave the old place, where he built up a large business by his fair dealing and accommodating manner. In his new quarters George will be more comfortably housed and better prepared to accommodate his trade.

"Standard" CONRED BATH

The "Conred" is one of the most convenient patterns of corner Baths on the market and is a new departure from the ordinary style as regularly furnished.

It is of the simple and convenient low pattern design, the rim being about five inches lower than the ordinary bath, while the depth inside is not affected but remains about the same as that of the regular style.

This feature makes the "Conred" very convenient for the bather, especially for children and invalids.

The rim is only 17¾ inches from floor.

The depth inside is 17 inches, about the same as an ordinary bath.

It is easy to install.

The washers in valves of all concealed fittings can be renewed by simply unscrewing bonnet and taking out stem.

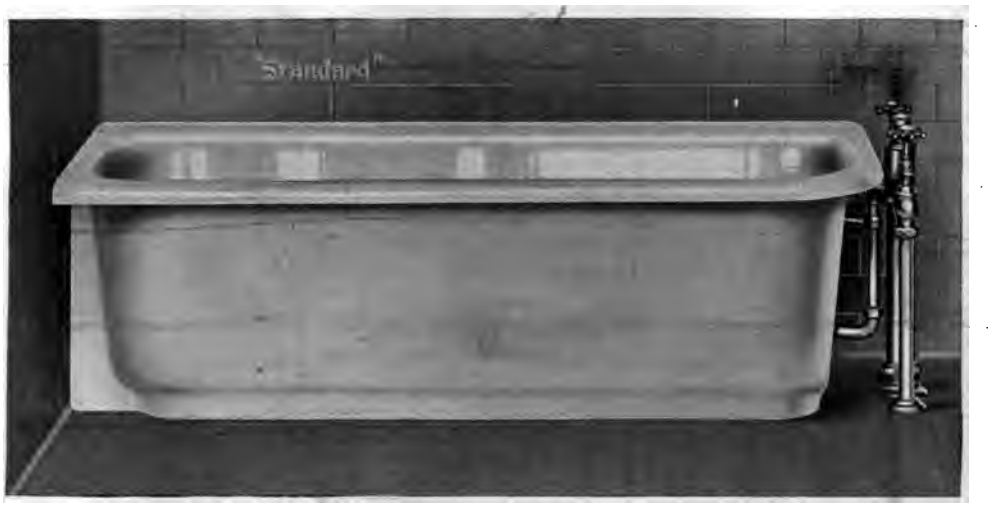
The entire tub is made in one piece, and is absolutely free from cracks and crevices to lodge dirt or moisture. Enameled all over it represents the last word in sanitation and cleanliness.

It can be furnished enameled all over or painted on outside.

It is easy to clean.

Tiled into the walls and floor, it affords no opportunity for dirt or moisture to accumulate back of or under the bath.

It bears the "Standard" "Green and Gold" guarantee label.



"CONRED" PLATE P 2160-J

"Standard" Porcelain Enameled "Conred" Bath for tiling in left hand corner with right hand end outlet and 3-inch roll rim; fitted with special nickel-plated "Imperial" Bottom Bell supply and waste fitting with ½-inch supply pipes, compression valves, with nickel-plated six-ball handles and china indexes, and china indexed waste knob.

DIMENSIONS

Depth inside at outlet, 17 in. Height, bottom of bath to top of rim, 17¾ in.

Nominal Sizes	5 feet	5½ feet
Plate P 2160-J, with fittings as described	$60.00	$65.00

Standard Sanitary Mfg. Co.

General Offices, Pittsburgh, Pa.

OFFICES AND SHOWROOMS:

New York.....35-37 W. 31st Street
Boston.....John Hancock Building
Chicago...Karpen Bldg., 900 S. Michigan Ave.
St. Louis.....100-102 North Fourth Street
Philadelphia.....1215 Walnut Street
Washington, D. C.....200 Southern Building
Pittsburgh.....106 Sixth Street
Cleveland.....648-652 Huron Road, S. E.
Toledo, Ohio.....311-321 Erie Street
Cincinnati.....633 Walnut Street
Louisville.....319-323 West Main Street
Nashville.....315-317 Tenth Avenue, So.
Houston, Tex.....Cor. Preston & Smith Sts.
Fort Worth, Tex.....Front and Jones Streets
New Orleans.....Cor. Baronne & St. Joseph Sts.
San Francisco,....Merchants Nat. Bank Bldg.
Toronto, Can.....59 Richmond Street, E.
Montreal, Can.....215 Coristine Building
Hamilton, Can.....20-28 Jackson Street, W.
London, Eng.....57-60 Holborn Viaduct, C. E.

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Thirty-first Paper

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RULE 143. Latrines, trough water-closets and similar appliances may be used only on written permit from the said Superintendent of Buildings, and must be set and arranged as may be required by the terms of the permit.

In illustrating and interpreting the above rule 143, we have produced two drawing plates, 144 and 145. The former refers to latrines, or trough water-closets, and the latter to trough urinals. Considering latrines, or trough water-closets, first, we might state that they are simply "water-closets" flushed "collectively" instead of individually. The flush is automatically controlled and operated every few minutes, or in fact, we may have any desired interval between flushes by merely regulating our flushing tank. These latrines operate (entirely) whether one or more persons use them and of course, consume, as it were, large quantities of water which might be used for other purposes, and if we regulated them to be flushed at long intervals, the unsanitary condition of them, if used extensively, is very evident to us. In the past these closets were largely installed in factories, foundries, schools, and quite frequently in railway terminal stations, where the multitudinous of persons almost required this kind of water-closet. But to the writer and, no doubt, to others who have traveled extensively and considered toilet facilities in quite some detail, the trough water-closets are more a receptacle for garbage and are "out of order" or "not working" when the exodus from trains is greatest. They are, of course, cheaper and more economically installed than other individual water-closets.

Not only in New York City, but throughout the country, these latrines and trough water-closets are being replaced by batteries of individual water-closets of nearly the best grade, and the directors of large manufacturing plants outside of the plumbing line have arrived at the conclusion that though the cost of the individual closets was ten times greater than the old and non-dependable "collective" closets, the results obtained showed a great big balance on the profit side of the sheet and the mechanics were completely satisfied, due, no doubt, to the sanitary facilities for these workmen, who are appreciative in matters of this kind.

First, whose specialty is to manufacture plumbing appliances of every description,

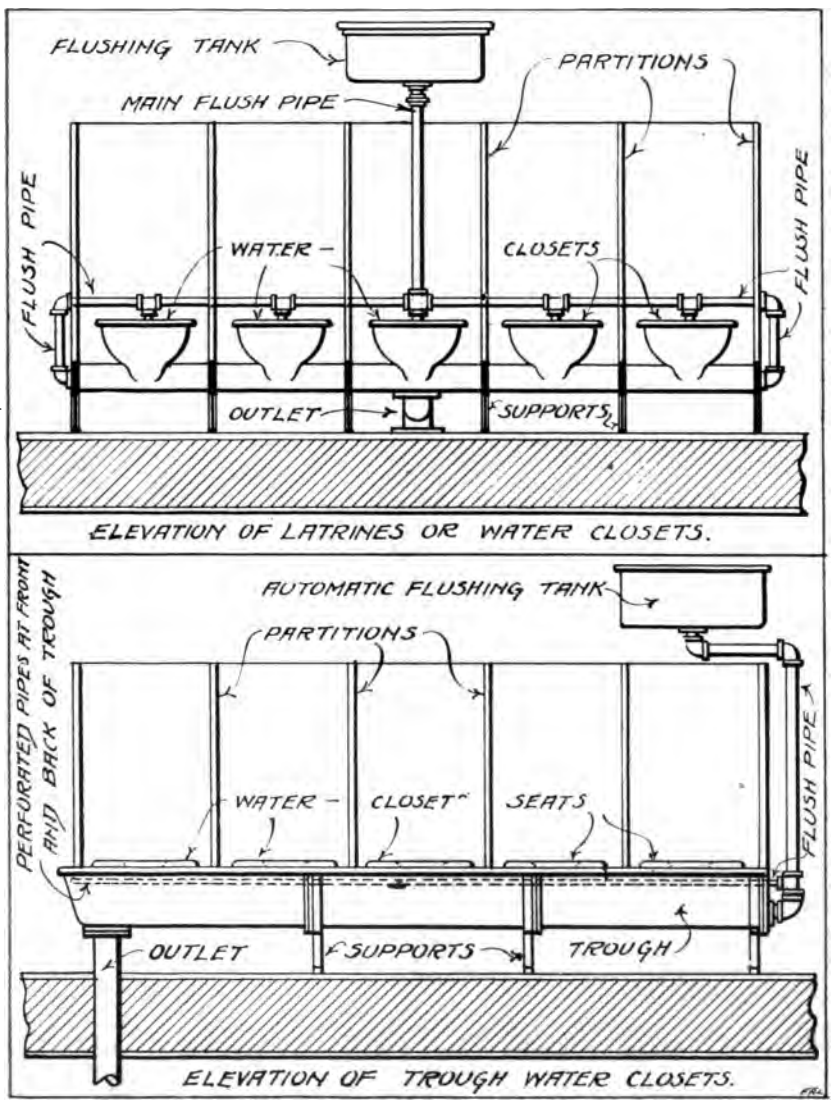


PLATE 144—ILLUSTRATING RULES 143 AND 146.

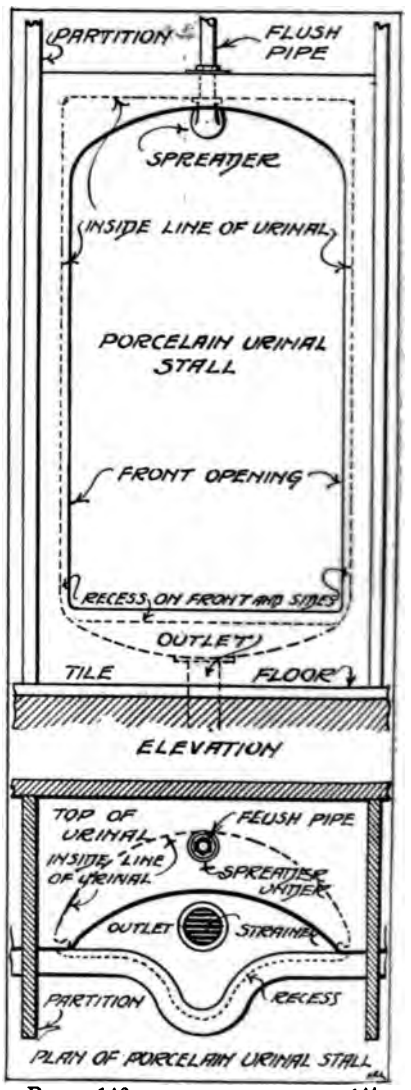
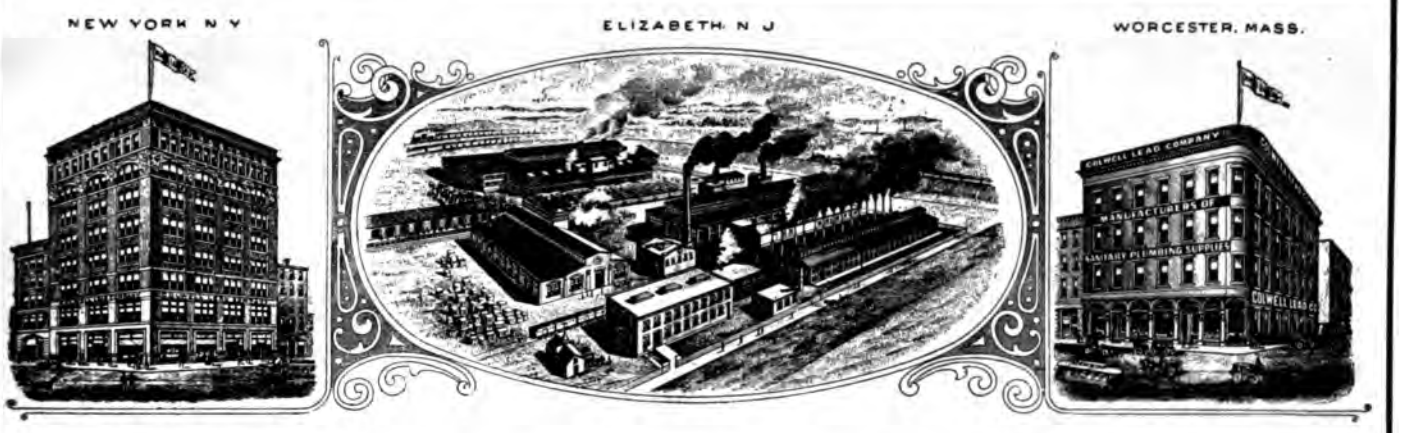


PLATE 146—ILLUSTRATING RULE 144.



COLWELL LEAD COMPANY

Manufacturers and Jobbers of

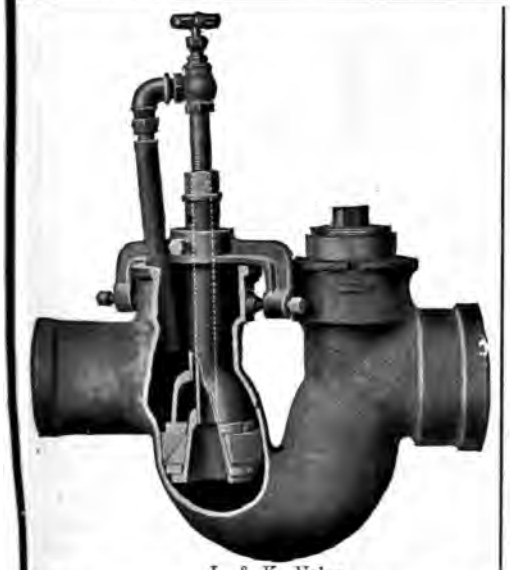
Lead Goods and Plumbing Supplies

Lafayette and Walker Sts.
NEW YORK

BRONX BRANCH
3103 Third Avenue

BROOKLYN BRANCH
359 Pearl Street

DETROIT, MICH. WINDSOR, CANADA



L. & K. Valve.

L. & K.

Testing Valves and Plug

Patented September 6, 1898
No. 610,452

THE DEVICES herein illustrated have been invented and perfected by a plumber for the plumber—more particularly for the up-to-date plumber, who does a job to be a job. And as the proof of the pudding is in the eating, so the wind-up of a plumbing job should always be a thorough test of all the joints before the work is accepted.

L. & K. Test Plug.

The architect usually insists on such a test, and the plumber goes to an immense amount of labor and expense to convince him that the work is O. K.

But why should there be this expense to accomplish that?

No pressure test can be made unless all the outlets are effectively stopped, and there is where the expense "comes in" unless you chance to have in your equipment of tools a set of L. & K. TEST PLUGS AND VALVES.

Send for Booklet giving full description.

JOHN SIMMONS COMPANY

110 Centre Street, 48 East 41st Street, NEW YORK. Bush Terminal, BROOKLYN

must, to cater to some owners of buildings, produce articles which they desire, therefore we have the latrines and trough water-closets for these special persons.

From an "investing" standpoint, that is, freight terminals, plants, etc., which house hundreds of workmen, when rented, and built to sell or "stick" the buyer, frequently have installed in them "collective closets," but to-day an expert buyer or agent for any big firm, who wants nothing but the best, not only for themselves but for the workmen, invariably insist on the sanitary arrangements, being the very best and of latest design. It would be a fallacy then, from now on, to install in any contemplated building anything but first grade individual water-closets.

Plate 144 shows two illustrations of latrines or trough water-closets, the upper sketch showing the closet and horizontal "soil" an integral part of the bowl. These sections are connected together and separated by partitions as indicated. The bowls are flushed from pipes at rear, as shown, and also at end of horizontal "soil." The outlet or trap is shown under center closet and discharges into main soil line. The trap, of course, being vented.

The lower sketch is a trough water-closet in every sense and the sitting areas divided by partitions supported from the trough. In this particular case the general trough is made up of three sections, some being bolted together. This lower sketch differs from the other in that the flushing pipes are arranged differently. At the right side of trough, dropping from automatic tank, the flush pipe discharges into trough near its bottom, and also just below front and rear of rim of trough is a perforated pipe intended to cleanse the sides of trough, this connection is taken off the flush pipe just above connection to bottom of trough.

At left end of trough is indicated the outlet and it is trapped and vented similar to a sink.

Rule 144. All urinals must be constructed of materials impervious to moisture, and that will not corrode under the action of urine. The floor and wall of the urinal apartments must be lined with similar non-absorbent and non-corrosive material.

In reference to this rule we have produced two drawings of urinals; plate 146, a solid porcelain urinal stall, and plate 147, a wall urinal. The former is simply a piece of porcelain "hollowed out" with recesses on sides and front just above base to prevent the flushing water from passing beyond these recesses, but allowing all the water to thoroughly clean the entire soiled space within the urinal and then discharging the entire contents into the outlet.

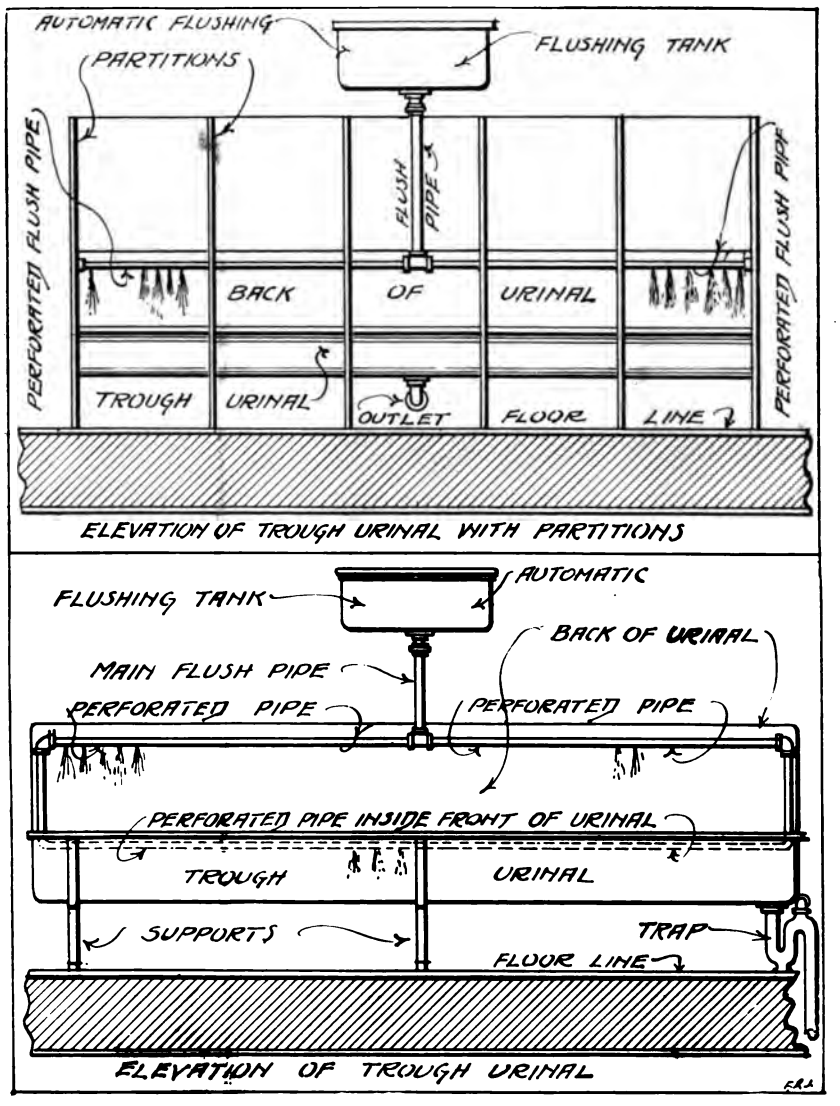


Plate 145—illustrating rules 143 and 146.

This design of urinal is about as perfect as has been produced so far, as it eliminates the "dampness" or "puddles" frequently found under a "hung from the wall urinal, and this accumulation of poiso

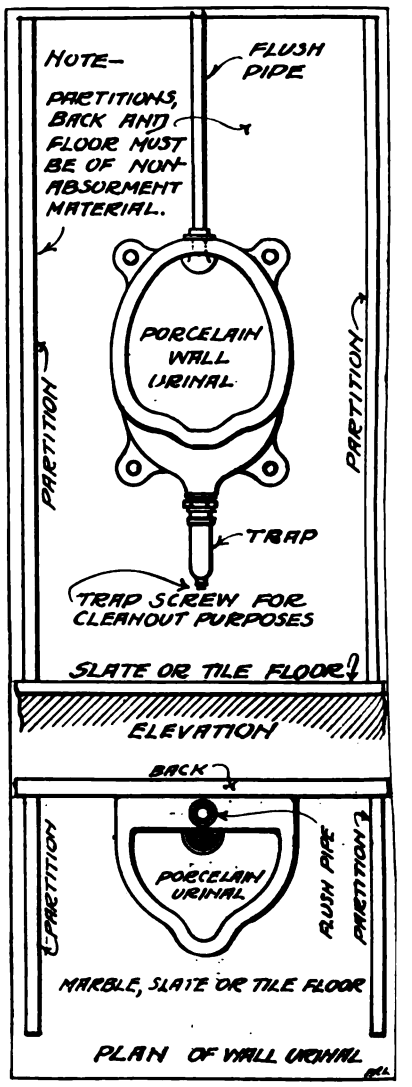


Plate 147—illustrating rule 144.

acid on the floor cannot be independen connected to the plumbing system, as w be shown shortly.

The plate 146 shows plan and front e vation of a porcelain urinal stall. T process in manufacturing this kind urinal is such that it is absolutely i pervious to the acids that come in conta with it. When these urinals are set in ba teries a partition is generally inserted b tween them, though one is really unnece sary. From the two sketches we think th reader will get a pretty good idea of th design and construction of the urinal.

Plate 147, under this same rule (144), i a sketch of a wall urinal—plan and eleva tion.

The material of the urinal also is o porcelain, but has no integral partitions a the urinal described above. We must therefore, construct partitions, and they must be impervious to moisture, the back partition and floor as well.

Slate, marble and tile are frequently used for these partitions, but should w install wall urinals, as this sketch shows why not use porcelain partitions?

The Design of Indirect Heating Systems with Respect to Maximum Economy and Operation.

By FRANK L. BUSEY and WILLIS H. CARRIER.

Read at the Annual Meeting of the American Society of Heating and Ventilating Engineers.

(Concluded from last issue.)

THE curves in Figs. 4 and 5 show the general relation between the cost of the power due to the frictional resistance through the heater at the two rates of $10 and $40 per horsepower year, the interest and depreciation allowance on the cost of the heater and the sum of these two, or the total yearly charge. For Fig. 4 an allowance of 15 per cent. is made for interest and depreciation, while for Fig. 5 this allowance is 25 per cent. The cost of power is the same for each set of curves, but the combined curve ($C_s + C_p$) is different, due to the difference in the value of C_s.

The curve $C_s + C_p$ represents the combined cost per 1,000 cubic feet of air per minute, due to the interest and power cost for the different velocities. From Fig. 4 we see that if power costs $40 per horsepower year the lowest total cost of operation will be $3.75 per 1,000 cubic feet per minute, at a velocity of 400 feet per minute, through the heater. It may be easily noted from the curve how the increase in velocity makes an increase in cost. The velocity at the low points on these total cost curves should correspond to the velocity from the curve in Figs. 2 and 3 for the same cost per horsepower year. The two values of $10 and $40 per horsepower year are taken merely as two representative costs, and the curves may be plotted for any other horsepower cost or interest allowance by means of equations (14) and (15).

The assumed values used in making the calculations for Figs. 2 and 5 are not intended to apply to all cases, although they do probably represent average conditions. The price per square foot for the heater installed complete, with casing and steam and drip headers, will vary more or less with every case, but 35 cents was taken as a fair value and near enough to most installations to form the basis for a comparative study. The percentage allowance for interest and depreciation may be varied to suit the circumstances, and will depend largely on how much the purchaser's money is worth to him; that is, whether he would be satisfied with a return of five of six per cent. on this investment, or whether, by putting the money into his business he could make several times that return.

PRESSURE LOSSES IN THE PIPING SYSTEM.

The losses in the piping system are made up of two parts, the dynamic losses and the friction losses. The dynamic losses are due to changes, either in the direction or velocity of the air flow, and are composed of the loss of entrance and of the loss in elbows and connections. The first is the pressure required to produce itself in the pipe, and may vary anywhere from one to 1.5 times the velocity head, *i. e.*, the pressure corresponding to the velocity, depending on whether the pipe is connected directly to the fan outlet or through a plenum chamber. It is expressed as a multiple of the pressure corresponding to the average velocity produced in the pipe. Where the velocity in the pipe is the same as at the fan outlet this may still be considered a loss, in view of the fact that with a reduction of velocity through a gradually diverging outlet to a larger area the difference between the velocity head at the fan and the velocity head in the pipe is largely utilized by conversion to static pressure.

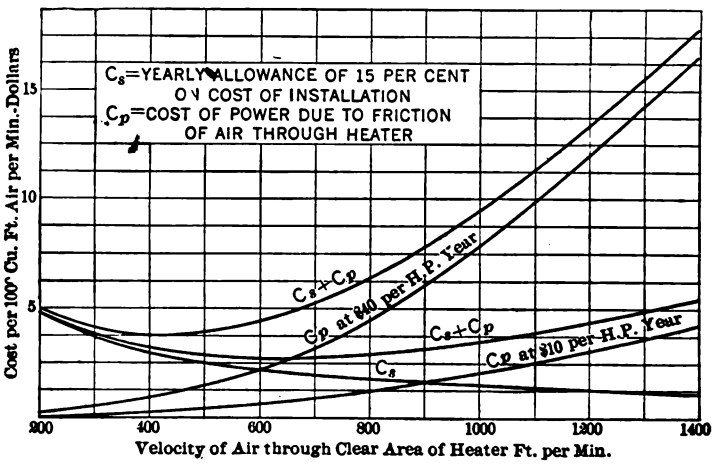


FIG. 4—RELATIVE YEARLY INTEREST AND DEPRECIATION COST OF SURFACE AND POWER COST DUE TO FRICTION OF AIR THROUGH HEATER AT VARIOUS VELOCITIES THROUGH THE CLEAR AREA, ALLOWING 15 PER CENT. ON COST OF HEATER FOR INTEREST AND DEPRECIATION.

The other chief source of dynamic loss is in the elbows, and depends on the radius of curvature of the elbow and not on the size of the elbow or the velocity of the air. This loss may be expressed directly in per cent of the velocity head, and with a round, five-piece elbow, having a center line radius of one diameter, the loss will be 25 per cent. of the average velocity head. With a five-piece elbow having a center line radius of one and one-half diameters the loss will be 17 per cent., or only two-thirds that of the first case. This shows the advantage of an intelligently designed system and the possibility in power saving, for the elbows may be of so short a radius as to cause the loss of an entire velocity head in each elbow.

An instance recently came to the writer's notice that will serve as an illustration of the effect of a badly built layout, inasmuch as the apparatus was used in connection with a manufacturing installation, and the effect of the elbow resistance was directly evident in curtailed production. Two different sets of similar apparatus were installed under the same conditions, except

that in one the piping connections were properly constructed, while in the other there were four sharp right-angle elbows used. The outfit with the easy long radius elbows is in successful operation, while in the other the output of the apparatus is probably not more than one-half of what it should be, and of what the properly installed plant is doing. The piping in both cases is the full size of the fan outlet, and the only difference is in the construction of the elbows.

The second source of pressure loss in the piping system is due to the friction of the air against the sides of the pipe. This loss will vary directly as the length of the pipe, or as the square of the velocity, and inversely as the diameter of the pipe. As the length is a fixed quantity for any system, the only factors subject to modification are the diameter and velocity, which determine the relation between the power cost and the piping cost.

As in the case of the heaters, it is the usual engineering practise to proportion the piping arbitrarily, either from assumed velocities depending upon the velocity of the air at the fan outlet, or, in better engineering practise, by determining the velocity which will give an assumed resistance considered suitable and within the fan capacity. It is the usual practise among fan manufacturers gradually to decrease the velocity of the air in the main conduit, as the latter is decreased in size, owing to partial delivery of the air through the branch outlets.

This practice serves three useful purposes:

1. A proper proportioning of the velocities permits a uniform delivery of the air through all of the branch outlets without dampers and regardless of the distance from the fan.

2. By a gradual reduction in velocity a considerable proportion of the velocity pressure is usefully converted to static pressure, thus largely compensating for the piping friction.

3. It decreases the friction in the smaller piping, where it would otherwise be the greatest.

The method which probably accomplishes this the most satisfactorily, and at the same time in a thoroughly practical manner, is that introduced by the Buffalo Forge Co., and described in its treatise on "Heating and Ventilating," issued in 1908. In this method the sizes of the branches or reduced piping may be proportioned directly from the assumed size of the main pipe without calculation by referring to the accompanying chart, Fig. No. 6.

For example, assume we have a branch intended to carry 50 per cent. of the capacity of the main pipe, which is 50 inches in diameter. Starting at the bottom of the chart with 50 per cent. capacity, we pass upward until we intersect the line A, thence horizontally until we strike the diagonal line marked 50, thence upward to the scale at the top of the chart, which gives us a diameter of 38 inches for the branch pipe. This then is so proportioned as to give us the same friction per foot of length as in the main pipe. This permits the resistance of the entire system to be calculated as though it was of one diameter, with a corresponding velocity throughout its entire length.

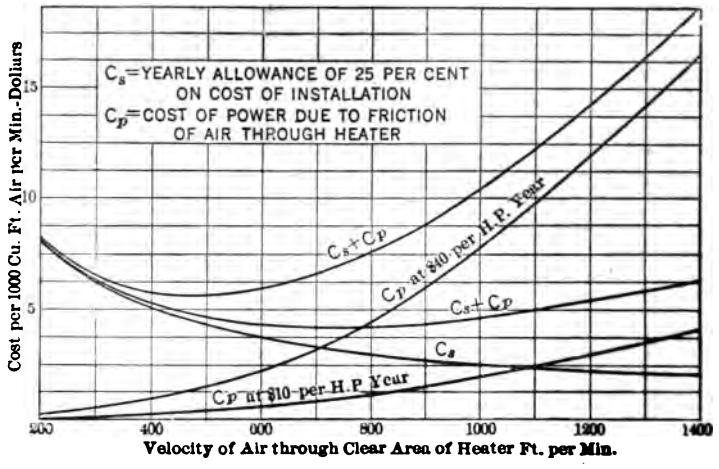


FIG. 5—RELATIVE YEARLY INTEREST AND DEPRECIATION COST OF SURFACE AND POWER COST DUE TO FRICTION OF AIR THROUGH HEATER AT VARIOUS VELOCITIES THROUGH THE CLEAR AREA, ALLOWING 25 PER CENT. ON COST OF HEATER FOR INTEREST AND DEPRECIATION.

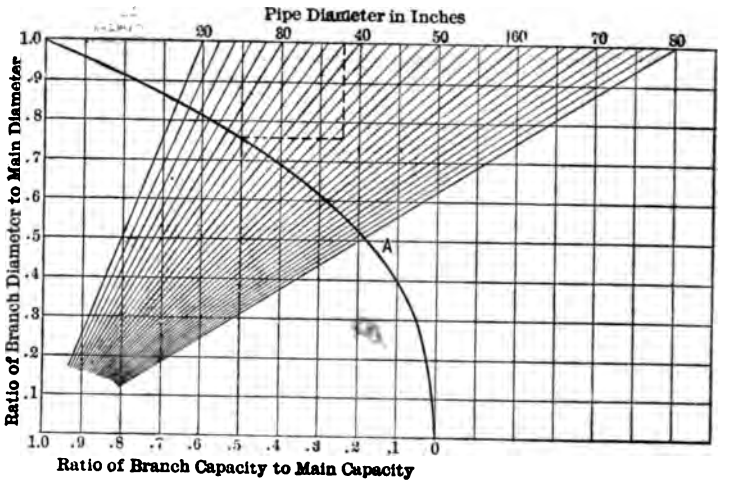


FIG. 6—PROPORTIONING PIPING TO ALLOW FOR FRICTION.

VELOCITY FOR MAXIMUM ECONOMY.

A decrease in velocity increases the size and cost of the air conduit, but decreases the cost of power consumed in overcoming the conduit or piping resistance. From a point of economy the question to be determined is what relation between power cost and conduit cost, as determined by the velocity, will give the minimum annual total cost.

This relationship is show in Appendix No. 2 to be

$$\left(\frac{V_m}{V_o}\right)^3 = 0.335 \left(\frac{C_{wo}}{C_{po}}\right) \qquad (41)$$

or

$$V_m = = 0.7\ V_o \left(\frac{C_{wo}}{C_{po}}\right)^{1/3} \qquad (42)$$

Where C_{po} and C_{wo} represent respectively the cost of power to overcome piping resistance and the annual allowance on the cost of the piping for interest and depreciation at an assumed velocity V_o, and V_m is the relative velocity required for maximum economy.

Comparing these relationships with those obtained for the heater, it is evident that they are almost identical. It will be seen in this case that for the maximum economy the annual cost of power consumed by piping resistance should be practically one-third of the annual interest and depreciation charges, based on the initial cost of piping. That is, $C_p = 0.335\ C_w$ for maximum economy.

PRACTICAL APPLICATIONS.

For the purpose of illustrating the application of the foregoing principles to a system of galvanized iron piping different cases will be assumed and the results shown. A system handling 30,000 cubic feet per minute, at a velocity of 1,950 feet per minute, will require a pipe 53 inches in diameter, or an area of 15.32 square feet. These quantities will be taken as a constant condition, but different arrangements considered in the system of piping.

Assuming one straight duct 200 feet long and 53 inches in diameter, delivering all of the air at the end furthest from the fan, we will have two sources of loss to be overcome by the fan. First, the dynamic loss due to the velocity of 1,950 feet per minute (or one velocity head), and second, the loss due to friction, amounting to one velocity head in each 40 diameters of length. The pressure due to the velocity of 1,950 feet per minute in the pipe (one velocity head) will be 0.237 inch, water gauge. The loss of pressure due to friction will be

$$\frac{200}{4.42 \times 40} = 1.13 \text{ velocity head.}$$

This loss expressed in inches of water will be

$$0.237 \times 1.13 = 0.257 \text{ inch}$$

and the total loss will be the sum of these two, or 0.494 inch. In the piping system a part of the velocity is converted to static pressure, hence the power calculation should be based on total pressures, with a corresponding fan efficiency of 50 per cent. At a rate of $20 per horsepower year, the annual cost due to the piping resistance will be

$$C_{po} = 30{,}000 \times 0.000324 \times 0.494 \times 20 = \$96.$$

A round galvanized iron pipe, 53 inches in diameter, would be made of No. 18 iron, weighing 2.3 pounds per square foot, and would contain 14.2 square feet per running foot. This would made 32.7 pounds per running foot, or a total of 6,540 pounds for the entire pipe. Allowing 25 per cent. annually for interest and depreciation on an initial cost of, say, 10 cents per pound, the yearly allowance would be 2.5 cents per pound of iron. Then we would have as the yearly allowance for interest and depreciation

$$C_{wo} = 6540 \times \$.025 = \$163.50.$$

From equation (42) we may determine that for the most economical conditions the velocity of the air in the pipe should be

$$V_m = 0.7 \times 1950 \left(\frac{163.5}{98.0}\right)^{1/3} = 1620 \text{ ft. per min.}$$

Assuming the case where the 30,000 cubic feet per minute is to be uniformly distributed by a galvanized iron pipe 200 feet long, with equal openings every 20 feet of its length, each discharging 3,000 cubic feet per minute, we will have an example of another common form of installation. Referring to the chart, Fig. 6, we see that, if the first 20 feet of pipe is 53 inches in diameter, the next 20 feet carrying 90 per cent. of the air should be 51 inches in diameter. Treating each successive section in the same manner we may determine the diameter and weight of each section, and will find the total weight of the piping to be 3,922 pounds. Then the yearly total allowance for interest and depreciation on the piping system will be

$$C_{wo} = 3922 \times .025 = \$98.05.$$

The loss in pressure due to friction will be the same as in the first case considered, or 0.257 inch, but the loss due to the velocity will be only about 40 per cent. of the loss, as calculated in the first example, or 0.095 inch. The total pressure loss will then be

$$0.257 + 0.095 = 0.352 \text{ inch}$$

and the annual power cost at $20 per horsepower year will be

$$C_{po} = 30{,}000 \times 0.000324 \times 0.352 \times 20 = \$68.50.$$

As before, from equation (42) we will have as the velocity for the most economical operation

$$V_m = 0.7 \times 1950 \left(\frac{98.05}{68.50}\right)^{1/3} = 1540 \text{ ft. per min.}$$

Another example of the application of the relationship herein presented would be to assume a case of an entire installation of fan, heater and piping. As already suggested, a probably fair average annual allowance on the entire apparatus for interest and depreciation would be 20 per cent. on the first cost of the installation. Assuming that, in order to obtain the most economical operation the yearly cost of power should be 30 per cent. of the above 20 per cent. allowance, we have the yearly power cost as equal to six per cent. on the initial cost of the installation. Allowing $20 per horsepower year as the cost of power, we will find from Fig. 3 that, with a 25 per cent. allowance in the cost of the heater

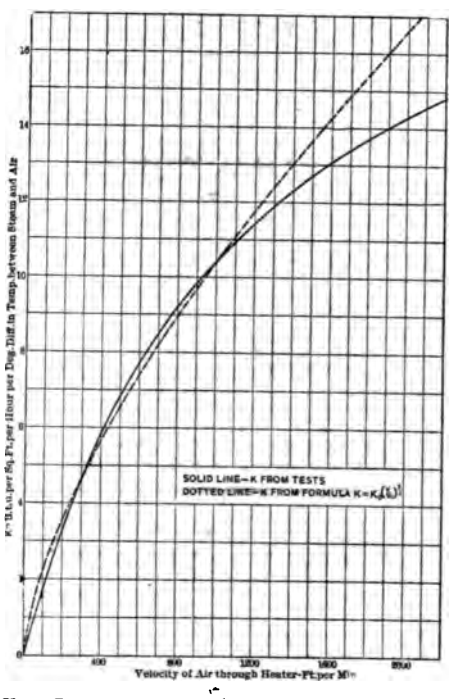


FIG. 7—RATE OF HEAT TRANSMISSION FROM TESTS AND FROM FORMULA.

$$K = K_o \left(\frac{V}{V_o}\right)^{2/3}$$

for interest and depreciation, the velocity through the heater should be approximately 590 feet per minute in order to operate at the point of greatest economy.

For the same assumed conditions as to air handled, the resistance through the heater will now be 0.145 inch and at the most economical velocity through the piping system the pressure loss will be 0.31 inch, making a total pressure at the fan of

$$0.145 + 0.31 = 0.455 \text{ inch, or } 0.254 \text{ ounce.}$$

The total annual cost of power will then be

$$C_p = \$98$$

instead of $212.50 under the first assumed conditions when using one straight run of pipe 200 feet long. This would show a saving of $114.50. The total cost of the apparatus as at first assumed would be approximately $1,331, so that the power cost of $212.50 would amount to 16 per cent. on the initial cost of the apparatus.

The total cost of the apparatus, as revised to meet the more economical conditions, would be $1,660, or an increase of $329. The yearly cost of power would be 5.9 per cent. on the initial cost, and we would have an allowance of 19.7 per cent. for interest and depreciation on the entire installation. The saving of $114.50 would make a return of 35 per cent. on the additional investment.

CONCLUSION.

Based on the foregoing deductions it is evidently not only possible but practical to lay out a heating and ventilating system in such a manner as to obtain any desired economic results with as much certainty as is at present done with regard to the strictly engineering features.

As regards the heater, the most economical point will be reached when the installation is so proportioned that the yearly cost of power due to the frictional resistance of the heater amounts to 28.6 per cent. of the annual interest and depreciation allowance on the first cost of the heater. This is true regardless of variations in the depth of heater, temperature rise or steam pressure.

The most economical velocity through the piping or conduits is such that the annual cost of power due to the piping resistance is one third of the annual allowance for interest and depreciation. This latter may be assumed to be about 25 per cent. on the original cost of installation.

While these lower velocities and consequently lower resistance would require the use of larger fans in order to operate at high efficiency, considering the entire installation of heater, piping and fan, the annual cost of power should be practically 30 per cent. of the total annual allowance for interest and depreciation. If this allowance is taken at 20 per cent. as an average, we would have six per cent. on the first cost as the most economical yearly rate to be allowed for power.

The Aberdeen, S. D., Plumbing Co. and the Bennett Jacobs Plumbing Co. have consolidated, forming a corporation with a capitalization of $25,000 to do a general plumbing and hardware business.

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NEW YORK *Catalog mailed on request.* CHICAGO

Meeting of the National Pipe and Supplies Association.

HOTEL SHERMAN, Chicago, was the scene of the fourth annual meeting of the National Pipe and Supplies Association on April 14 and 15. It was the first meeting that the association ever held in the west, and was a record breaker in attendance, 180 members and guests being present.

The convention was opened by President J. P. Hartnett at 10:30 o'clock Monday morning, April 14. In his address President Hartnett paid a tribute to the hospitality of the Chicago jobbers, and called on C. V. Kellogg, of Kellogg-Mackay, of Chicago. Mr. Kellogg pointed out that the meeting in the west would introduce many problems to the members not encountered in the east.

Harry A. Wheeler, president of the Chamber of Commerce of the United States, was introduced. Mr. Wheeler seemed to think that a serious crisis was confronting the United States, and one that would outdo all previous ones, inasmuch as all other crises were of a political nature, while the crisis is an economical one. He did not believe that tariff revision would prove to be a solution of the high cost of living. In the last 30 years there has been a steadily downward revision, so that there are now 50 per cent. of our imports entering the country free of duty. Thirty years ago the consumer imported only 52 cents worth per capita free of duty, whereas last year the amount was $8.42 per capital. Yet the cost of living has steadily increased.

Mr. Wheeler insisted that the members of the organization should attach more importance to the loss of a week's wages by their operators than to the vagaries of the tariff bill.

J. J. Ryan addressed the convention on "The Business Outlook." Mr. Ryan stated that he found an optimistic spirit prevailing throughout his entire territory on this question.

The afternoon meeting was conducted in executive session. President Hartnett delivered his annual address, followed by the reports of the secretary and treasurer.

The following committees were appointed:

Nominating—F. E. Walker, John Simmons Co., New York City; George V. Denny, Georgia Supply Co., Savannah, Ga.; Alvin M. Smith, Smith-Courtney Co., Richmond, Va.

Resolutions—W. E. Clow, Jr., James B Clow & Sons, Chicago; A. E. Ford, Ford & Kendig Co., Philadelphia, Pa.; F. A. Bucknam, Nason Mfg. Co., New York City.

"The Maintenance of a Price" was the title of an address by W. E. Clow, Jr., of Chicago.

Quite a discussion was opened up by D. J. Mahoney, of Savannah, Ga, after which the following resolution was unanimously passed:

Whereas, The National Pipe and Supplies Association considers the banking and currency reform the most important of all economic questions that now confront our country, and in their opinion the immediate enactment of proper laws on this subject are necessary to establish and maintain confidence in the commercial world, because the present system is one that invites money panics on every occasion of commercial or financial unrest. Therefore, the National Pipe and Supplies Association hereby urgently requests His Excellency, the President of the United States, and our Senators and Representatives in Congress, to do all in their power to promote such legislation at the coming extra session of Congress, and in every way possible use their endeavor to

CHAS. H. SIMMONS, NEW YORK CITY.

carry out any recommendation for banking and currency reform laws that will meet the conditions that now demand a radical change.

The last day's session opened at 10 o'clock, and the reports of the pipe and fittings committee were received.

Among the addresses made were "Some Essentials of a Successful Business," by Henry Aird, of Aird-Don Co., Troy, N. Y., and "Relations Between Manufacturers and Jobbers," by Alexander B. Pierce, of the N. O. Nelson Co., St. Louis.

The officers of the association for the ensuing year were elected as follows:

President, Wm. M. Pattison, Wm. M. Pattison Supply Co., Cleveland, O.

First Vice-President, A. L. Scott, Pacific Hardware & Steel Co., San Francisco, Cal.

Second Vice-President, Alex. B. Pierce, N. O. Nelson Mfg. Co., St. Louis, Mo.

Treasurer, C. G. Cornell, Jr., Cornell & Underhill, New York.

Secretary, Geo. D. McIlvaine, Pittsburgh, Pa.

Executive Committee—F. A. Bucknam, Nason Mfg. Co., New York City; H. W. Thorndyke, F. W. Webb Mfg. Co., Boston; George B. Limbert, G. B. Limbert Co., Chicago; A. A. Merkel, Merkel Bros, Cincinnati; W. T. Todd, Somers, Fitler & Todd Co., Pittsburgh; George V. Denny, Georgia Supply Co., Savannah, Ga.; J. B. Rahm, U. S. Supply Co., Omaha, Nebr.; A. A Tomlinson, Virginia-Carolina Supply Co, Norfolk, Va.

The next meeting of the association will be held in New York City.

The following is a list of the members, manufacturers, jobbers and guests present:

Adt, Edwin B., Jno. B. Adt Co., Baltimore.
Bailey, Geo. H., Bailey-Terrell Co., Pittsburgh.
Barnes, T R., Barnes Mfg. Co., Mansfield.
Bellman, W. M., Shaw Kendell Engineering Co., Toledo.
Bennett, C. F., Pierce, Butler & Pierce, Syracuse.
Boswell, T. C., Aird-Don Co., Troy, N. Y.
Brockman, J. B., J. R. Brockman Mfg Co., St. Louis.
Bruce, W. E., L Wolff Mfg Co., Rochester.
Buckman, Frank A., Nason Mfg. Co., New York.
Buehlar, E., Davies & Co., Chicago.
Cahill, Jno. T., Cahill Supply Mfg. Co., St. Louis.
Clow, W. E., James B. Clow & Sons, Chicago.
Cooley, E. L., Michigan Supply Co., Lansing.
Cornell, C. G., Jr., Cornell & Underhill, New York.
Davies, W. B., & Co., W. B. Davies & Co., Chicago.
Dengel, F. R., F. R. Dengel & Co., Milwaukee.
Denny, Geo. V., Georgia Supply Co., Savannah, Ga.
Deschauer, Otto J., S. Deschauer Co., Chicago.
Donovan, J. F., Donovan Iron & Supply Co., St. Louis.
Donlevy, W. C., W. D. Allen & Co., Chicago.
Frick, W. E., Frick & Lindsay Co., Pittsburgh.
Ford, A. E., Ford & Kendy Co., Philadelphia.
Garrity, E. C., National Plumbing & Heating Supply Co., Chicago.
Geauque, Geo. W., Pacific Hardware & Steel Co., San Francisco.
Gibbs, Walter S., Ronalds & Johnson Co., New York.
Guewisch, A. H., Bayley Heating & Supply Co., Milwaukee.
Harmon, Jno., Nason Mfg. Co., New York.
Harnett, J. P., Pres., L. M. Rumsey Mfg. Co., St. Louis.
Haverstick, W., Haverstick & Co., Rochester.
Henion, W. B., Henion & Hubbell, Chicago.
Hinds, Geo. T., Kellogg-Mackay Co., Chicago.
Kellogg, C. V., Kellogg-Mackay Co., Chicago.
Kellogg, R. B., Grand Rapids Supply, Grand Rapids, Mich.
Keeler, F. D., Rockford Brass Works, Rockford, Ill.
Kinsey, Warren, Kinsey & Mahler Co., Peoria.
Klein, Edw. J., Michigan Plumbing Supply Co., Detroit.
Leighton, E. J., Leighton Supply Co., Fort Dodge, Iowa.
Limbert, Geo. B., Geo. B. Limbert Co., Chicago.
McGuire, J. D., Monument Plumbing Supply, St. Louis.
McKeen, Wm. J., Geo. B. Limbert & Co., Chicago.
McPhail, James P., James Robertson Mfg. Co., Baltimore.
Mahoney, D. J., Savannah Supply Co., Savannah, Ga.
Maneely, James F., Jno. Maneely, Philadelphia.
Mars, W. P., Marshall Wells Hardware Co., Duluth.
Materne, J. P., Materne Mfg. Co., St. Louis.
Merkel, Louis J., Merkel Bro. Co., Cincinnati.
Mills, J. Walter, Rhode Island Supply & Engineering Co., Providence.
Moon, Samuel H., Ahrens & Ott Mfg. Co., Louisville.
Newman, N. C., Flint & Walling Mfg. Co., Kendallville.
Niedecken, Edw. F., Hoffmann & Billings Co., Milwaukee.
Park, F. B., Flint & Walling Mfg. Co., Kendallville, Ind.
Patterson, Wm. M., Frick & Lindsay Co., Pittsburgh.
Pattison, W. M., W. M. Pattison Supply Co., Cleveland.
Payne, P. W., Kellogg Mackay Co., Chicago.
Pierce, Alex. B., N. A. Nelson Mfg. Co., St. Louis.
Rahm, J. B, United States Supply Co., Omaha.
Ratcliffe, W. A., Republic Mfg. Co., Chicago.
Rom, Robert, The Robert Rom Co., Milwaukee.
Rumsey, L. M., L. M. Rumsey Mfg. Co., St. Louis, Mo.
Ryerson, T. L., W. D. Allen Mfg. Co., Chicago.
Saxe, O. J., Dalton Ingersoll Mfg. Co., Boston.
Seelman, Aug., B. Hoffmann Mfg. Co., Milwaukee.
Sheldon, Frank M., Braman Dow & Co., Boston.
Shoff, H. E., Geo. B. Limbert & Co., Chicago.
Shurtleff, W H., Brown Wales Co., Boston.
Simmons, Chas. H., Jno. Simmons Mfg. Co., New York.

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Smith, Alvin M., Smith Courtney Co., Richmond.
Smith, Jas. S., Hendrie & Bolthoff Mfg. & Supply, Denver.
Smith, Wm., E. F. Keeting Co., New York.
Stringer, C. C., Republic Mfg. Co., Chicago.
Strong, H. W., Strong, Carlisle & Hammond Co., Cleveland.
Tomlinson, A. A., Virginia-Carolina Supply Co., Norfolk.
Tyne, Jno. J., Western Plumbing Supply Co., Chicago.
Van Hee, D. L., Sam Sloan & Co., Rochester, N. Y.
Watterman, H. V., Hendrie & Bolthoff Mfg. Co., Denver.
Walker, F. E., Jno. Simmons Co., New York.
Weil, I., Weil Bros., Chicago.
Weil, J. M., Weil Bros., Chicago.
Whitman, James R., Cotton States Belting & Supply Co., Atlanta.
Woodruff, W. F., Kellogg Mackay Co., Minneapolis.
Young, G. Frank, Central Metal & Supply Co., Baltimore.
Atkinson, Christopher, Columbia Supply Co., Columbia, S. C.
Badger, Chas. M., Hammond Byrd Iron Co., Birmingham.
Baldwin, Geo. B., Walworth Mfg. Co., Boston.
Bateman, J. G., National Tube Co., New York.
Bishop, Chas H., *Metal Worker, Plumber and Steam Fitter,* Chicago.
Bodenweiser, Aaron, Peerless Heater Co., Chicago.
Bostwick, G. W., National Tube Co., Pittsburgh.
Bruce, W. H., Mark Mfg. Co., Chicago.
Byrd, Wm M., Hammond Byrd Iron Co., Birmingham.
Cartwright, C. P., Pittsburgh Valve & Fitting Co., Barberton.
Christensen, W. H. Lunkenheimer Co., Cincinnati.
Conradt, A. V., Great Western Pottery Co., Kokomo.
Craig, H. W., Republic Iron & Steel Co., Chicago.
Crane, L. W., Republic Iron & Steel Co., Chicago.
Crawford, Elmer, *Mill Supplies,* Chicago.
Cross, Harold A., American Pin Co., Waterbury.
Cock, W. G., New Jersey China Pottery Co., Trenton.
Cooper, Clay C., *Mill Supplies,* Chicago.
Cotton, P. W., Republic Iron & Steel, St. Louis.
De Joannis, Harry, *Metal Worker, Plumber and Steam Fitter,* New York.
Devine, Jr., Wm., Thos. Maddock's Sons Co., Trenton.
Dibley, F. K., L. Wo'ff Mfg. Co., Chicago.
Dillon, A. H., Youngstown Sheet & Tube Co., Youngstown
Duncan, Jno., Wheeling Steel & Iron Co., Wheeling.
Eib, Chas. H., Republic Iron & Steel, Chicago.
Eichel, E. A., Mark Mfg. Co., Chicago.
Elliott, C. R., Wheeling Steel & Iron Co., Chicago.
L'Esperance, David A, National Tube Co., Atlanta.
Frampton, A. S., Wheeling Steel & Iron, Chicago.
Geary, D. J., Republic Iron & Steel, Youngstown.
Gregg, M. E., Republic Iron & Steel, Buffalo.
Hall, Walter M., Republic Iron & Steel, Pittsburgh.
Hamilton, L. L., Roberts Hamilton Co., Minneapolis.
Hardcastle, J. D., Sprang, Chalfant & Co., Inc., St. Louis.
Hesler, Carl B., Republic Iron & Steel Co., Chicago.
Hobart, A. N., National Tube Co., Chicago.
Hoppe, C. M., Republic Iron & Steel Co., St. Paul.
Hospes, G. W., O. H. Sample Lumber Co., Chicago.
Howell, E. G., Republic Iron & Steel Co., Chicago.
Hughson, H. H., Hughson Steam Specialty Co., Chicago.
Jenks, L. B., Youngstown Sheet & Tube Co., Youngstown.
Johnson, C. S., Northern Brass Mfg. Co., Waukegan, Ill.

A. E. FORD, PHILADELPHIA, PA.

Johnston, C. T., Republic Iron & Steel Co., Youngstown.
Jones, W. F., National Tube Co., Chicago.
Keeney, F. P., *Domestic Engineering,* Chicago.
Keer, Robt., Clayton & Lambert Mfg. Co., Detroit.
La Fleur, L. C., Great Western Pottery Co., Kokomo.
Lally, A. M., National Tube Co., Pittsburgh.
Lally, R. R., National Tube Co., Kansas City.
Lewis, D. W., Illinois Mall. Iron Co., Chicago.
Little, C. D., Crane Co., Chicago.
McAuliffe, R. J., National Tube Co., St. Louis.
McCollum, W. E., Chicago Credit and Information Bureau, Chicago.
McDougall, R. A., Republic Iron & Steel, Cleveland.
McInnes, Chas. E., Youngstown Sheet & Tube Co., Youngstown.
McLelland, H. B., Jenkins Bros., Chicago.
Maynard, Frank, General Fire Extinguisher Co., Providence.
Manning, Geo. H., Tennessee Mill & Mine Supply Co., Knoxville.
Manning, Wm. E., Youngstown Sheet & Tube Co., Youngstown.
Marquam, W. E., *Domestic Engineering,* Chicago.
Meyer, C. F., Iron City Sanitary Mfg. Co., Pittsburgh.
Minninger, F. M., Detroit Valve & Fittings Co., Detroit.
Maffet, J. M., Chapman Valve Mfg. Co., Chicago.
Montgomery, D. M., La Belle Iron Works, New Orleans.
Morrison, Frank A., Mason Regulator Co., Boston.
Murphy, J. B., Kohler Co., Chicago.
Nelson, Robert, Biddle Purchasing Co., New York.
Nelson, Henry P., National Tube Co., Atlanta.
Newberry, C. A., Newberry Hardware Co., Alliance, Nebr.
Newton, Frank G., United States Sanitary Mfg. Co., Pittsburgh.
Noone, Jno. A., Standard Sanitary Mfg. Co., Pittsburgh.
Oliphant, M. G., Cochran Drugan Co., Trenton.
Paulscraft, Wm. B., R. K. Carter & Co., New York.
Payne, Jno. W., *Mill Supplies,* Chicago.
Pedden, D D., Peden Iron & Steel Co., Houston.
Peters, F. W., Wm. B. Scaife & Sons Co., Pittsburgh.
Phillips, L. R., National Tube Co., Chicago.
Powers, A. W., Cohoes Rolling Mill Co., Cohoes, N. Y.
Purdy, J. D., Spang, Chalfant & Co., Pittsburgh.
Standard, Geo. P., Burlington Brass Works, Burlington, Wis.
Steneck, J. R., Illinois Malleable Iron Co., Chicago.
Stockham, Wm. H., Stockham Pipe & Fittings Co., Birmingham.
Thompson, W. M., Spang, Clifford Co., Chicago.
Tood, C. C., Central Foundry Co., Chicago.
Topping, Wilbur B., Republic Iron & Steel Co., Philadelphia.
Verbeck, Harry, Beaton & Cadwell Mfg. Co., Chicago.
Watson, W. E., La Belle Iron Works, Steubenville, O.
Westfall, H. D., La Belle Iron Works, Steubenville, O.
Weidmann, National Tube Co., New Orleans.
Weller, W. W., A. W. Byers Co., Pittsburgh.
Wickersham, Wilmer, La Belle Iron Works, Chicago.
Wheelock, F. W., Wheeling Sanitary Mfg. Co., Wheeling.
Worcester, Edw., Jr., National Tube Co., Pittsburgh.
Worcester, Francis, National Tube Co., Chicago.
Zint, R., Republic Iron & Steel Co., Chicago.

Articles of incorporation of the Burlington Plumbing & Heating Co., of Burlington, Ia., of which Arthur L. Grotewohl and George C. Niewoehner are incorporators, were filed with County Recorder Ernest C. Youngstrom April 14. The articles set forth the title of the concern, the purpose, the place of business, etc. The articles also state that the authorized capital stock is $5,000 and that shares will be $100.

New England News.

MICHAEL J. BUTLER, 40 years old, living at Cross Place, was appointed inspector of plumbing for Leominster, Mass., at the meeting of the Board of Health, which was held April 7. His salary for the position will be $500 a year. Mr. Butler was also appointed agent for the Board of Health at a salary of $500 a year. Both appointments are for three years. Mr. Butler has had a wide experience in the plumbing business, and his appointment is pleasing to the master plumbers and journeymen. He will have desk room in the office of the Board of Health office, and his office hours will be decided upon later by the Board of Health.

The National Co. has been incorporated by M. J. Byrne, F. C. Smith and Arthur A. Tanner, of Waterbury, and capitalized at $50,000. It will build or buy a factory and manufacture iron and brass specialties.

Walter H. Curtis, of Lowell, Mass., for 20 years with the H. H. Wilder Co., has started in business for himself. He will do all kinds of plumbing, gas and steam fitting. His office and shop will be at 17 June St.

The contract for the plumbing in the laundry building on Stratford Ave., Bridgeport, Conn., for Adolf Sherman has been given to Carlson & Benson.

A discussion as to the necessity of a plumbers' State license board was held at a meeting of the plumbers' local in the Carpenters' Hall, N. Main St., Pawtucket, R. I., recently. State Organizer Edward Kelly was the principal speaker. It was pointed out that many plumbers who do not reach the required standard exacted in other States come here, knowing that this State has no such law, and secure work. Their work in the larger number of instances is inferior to the general run of the work, and consequently the plumbers, they claim, are oftentimes accused of poor workmanship. They recommended that the General Assembly at its present session institute a State plumbers' board.

The committee on public property at Brockton, Mass., voted to award the contract for additional heating and ventilating in the Public Comfort Station to C. F Dahlborg & Son for $475.

Pawtucket, R. I., Master Plumbers Assemble with Friends at Their Annual Banquet.

THE annual banquet of the Pawtucket (R. I.) Master Plumbers' Association was held on the evening of April 8 in the banquet rooms at the Hotel Benedict. The members and invited guests numbered about 40, and a most enjoyable evening was spent. Included among the guests were representatives of supply houses in this city and in Providence. The menu served consisted of a roast turkey dinner with all the fixings. The dining room was prettily decorated for the occasion.

After the banquet had been completed cigars were passed around and, with President Frank Davis as toastmaster, the postprandial exercises took place. The cigars were furnished through the courtesy of the numerous supply houses. Speeches, songs and jokes were in order. A trio consisting of Messrs. Bodell, Hines and Hunt rendered "Who Took the Tanks?" This was so good that the trio was awarded an encore. Macomber Brothers gave an interesting talk on how to run an auto with molasses; Abbott Brothers also came in for a humorous song. A joke was sprung on President Davis when somebody told a story that Traffic Officer Lee had stopped him while he was riding in his automobile one day recently and asked him why he was burning soft coal for fuel.

FRANK DAVIS, PRESIDENT OF THE PAWTUCKET (R. I.) MASTER PLUMBERS' ASSOCIATION.

Several talks on the welfare of the association followed the humorous part of the evening's entertainment. The sister city of Central Falls was also well represented.

Much credit is due the committee in charge, which consisted of Messrs. McCaffery, Anderson and Holburn.

The contract for steam heating and plumbing in the new two-story reinforced concrete office building now in the course of construction for the Lutcher & Moore Lumber Co., of Orange, Tex., was awarded to the local firm of Cottle & Co. The plant is to be located in the basement. The contract will aggregate $2,000.

Another Good Fish Story.

NORWICH, Conn., April 15, 1913.

Editor MERCHANT PLUMBER AND FITTER:

FOR some reason or other a fish story is always attractive, and the temptation to tell one seems almost irresistible; but since the days of Jonah, perhaps, a more remarkably incredible one has not been undertaken than that related in the MERCHANT PLUMBER AND FITTER of April 10, of which O. A. McIntosh, of Orlando, Fla., was the hero. As the MERCHANT PLUMBER AND FITTER is a reliable journal and never known to publish a questionable statement, I did not think Mr. McIntosh's affidavit was a necessary accompaniment of his story. We are inclined to accept the romance, and to add, also, a singular and extraordinary occurrence of a similar kind that happened in Ireland some time ago.

An Englishman who had been fishing in one of the Lakes of Killarney said to his boatman, "An extraordinary thing happened to me here some years ago. I lost a pair of scissors out of my fishing book at the edge of the lake. The next year I was fishing here again, and hooked and killed a very large pike. I felt something hard inside it, so I opened it, and what do you think it was?"

"Begorra, then," said the man, "I'd think it might be yer scissors, only for wan little thing."

"And what is that?" asked the other.

"It's only just this, yer honor; that *there never was a pike* in any of the Killarney lakes since the world began."

JOHN TROLAND.

Boston Delegates to the National Convention.

BOSTON, Mass., April 16, 1913.

Editor MERCHANT PLUMBER AND FITTER:

AT the last regular meeting the following members were elected as delegates to the national convention, which is to be held in Philadelphia in June.

Delegates.	*Alternates.*
P. A. Lang.	J. P. Perham.
E. C. Kelley.	J. Larraway.
C. H. Cronin.	L. P. Bresnahan.
E. W. Cox.	M. Ahern.
J. S. Cassedy.	Thomas Mahon.
L. W. Stevens.	D. F. Keefe.
F. B. Connor.	Frank Bonney.
O. C. Poole.	T. J. Tute.
J. W. Zerringer.	A. F. Curtin.
W. P. Jones.	A. E. Touchet.
Charles Tucker.	W. F. Arkinson.
Daniel Shannon.	D. T. Harrington.
J. C. Kelley.	William Nason.
N. J. Kelley.	
A. A. Thompson.	

Recognizing the ability, the valuable service and the untiring efforts with which our two past national presidents have honored our association, it was the unanimous vote of the meeting that D. G. Finnerty and David Craig be chosen delegates.

P. J. Sullivan, president, was selected to act as chief of the delegation.

LLEWELLYN W. STEVENS, Secretary.

The Cadillac Plumbing & Heating Co., of Cadillac, Mich., has secured a contract to install the heating and ventilation systems in the new manual training and high school at Harbor Springs, in competition with other companies.

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Square and
Recess

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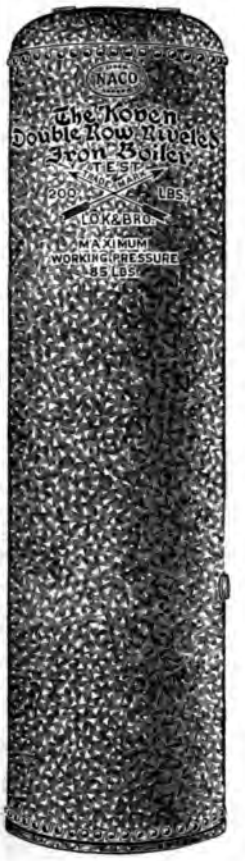

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NEW YORK, APRIL 25, 1913.

Accuracy the Test of Trade Papers. The most successful convention ever held in the State of Massachusetts, so far as the Master Plumbers' Association is concerned, was held earlier in the month in the city of Boston. Naturally, because of the importance since the inception of the "national," loyalty, support of its entire membership, and its continued growth in strength and influence, the national president and national secretary were both present. How surprising was it then to learn from a trade paper in the field, which surely was as able to secure the facts as any of the rest, that a letter of regret was sent the association by National President F. J. Fee. Absolutely incorrect. Mr. Fee was a notable figure at this convention, addressing the delegates lengthily, albeit interestingly, during executive session, and he was the distinguished guest of honor at the banquet held the night before. Slipshod methods in the presentation of reports, etc., etc., so noticeable in certain quarters, should not be tolerated, nor will they be. Incompetency should have no place where the reflections of the great good which the craft is doing for the country are being shown.

Increased Membership and Enthusiasm All Along the Line. The splendid increases which are being regularly and consistently shown in the many State organizations in affiliation with the National Association of Master Plumbers are evidence of continued progress and enthusiastic support of the ideals for which this great body of sanitarians stands. At a recent meeting of the Pennsylvania State organization, held in Pittsburgh, Pa., last week, the cry was made from an inland city by a member that there was a noticeable apathy being shown. Not so. Massachusetts will present an increased membership of approximately 100 names of those legitimately engaged in the plumbing business. Other State associations likewise will present to National President Fee in Philadelphia next June increases similarly encouraging. Considering the splendid protection and multifarious advantages which surround each and every member of this beneficent organization, the dues should be considerably increased, so that the good work undertaken by our forefathers, and so nobly continued by the second generation of the master plumbers of the United States, may continue unabated, not only for the advancement of its members, but for the ultimate good of the entire citizenry of this country. The laws safeguarding the health of the various communities have been placed upon the statute books by the master plumbers' associations. And now that the elimination of the general contractor is a surety in many States of the Union, the resultant savings to the various commonwealths will surely attract and hold the respect of thinking people.

Suggested Change in Business Practices of the Craft. The habit of selling to almost anybody by the supply dealers in a certain location, or many of them, the sale of accessories, bathtubs, if you will, and other fixtures by dry goods houses, etc., prompted a member of the organization recently to present a resolution in which the National Association is to be importuned at Philadelphia to permit of the selling of materials without installation by the members of the organization. The request for presentation of this radical scheme to the national convention several weeks hence was given by the delegates of the State. Should this proposition be acceptable to the convention, it will bring about a change in the constitution and by-laws, and in a measure abrogate the tenets of the national body. The projector of the resolution mentioned the changes now apparent from the older conditions, and stated that in his judgment such a step was absolutely essential if prosperity and competence are to be gained by our membership. The noticeable lack of merchandizing has resulted, he thought, to the detriment of the members of the craft. We should become merchants in fact as well as in name. Let us sell bathtubs without regard to their installation, or any of our fixtures, and we will then be comparable with the merchants of other lines of endeavor, who grow financially strong through ability to dispose of their wares unhampered. Naturally such a radical proposition will awaken lively opposition at the coming convention by the fathers of the National Association still with us, and whose wisdom, knowledge of conditions and pitfalls into which the craft might be permitted to wander will necessarily be addressed the convention for its present and future welfare. The discussion upon this topic alone will be one of undeniable interest, and the knowledge that it will be presented will alone assure a large attendance.

Personal

CHARLES J. BOARDMAN, Ronalds & Johnson Co., Brooklyn, is again active as a solicitor for this popular supply house. He has been temporarily upon the retired list, because of indifferent health. We are pleased to learn now that he has so far recovered his former robust health that he is able once more to visit his old and new customers. By the way, we understand that he has added quite a number of new names to the books during his peregrinations in and about the city during the past several weeks. Accordingly, Charlie, we present our cordial felicitations.

ED KOONS, the major salesman for the Kennedy Valve Co. in the Philadelphia territory, embracing the eastern coast, felicitated with us the other afternoon. Ed has some mighty select eating places, his taste for de luxe restaurants having been keened sharply during his many Parisian jaunts. Of more than passing mention at this writing is the "Spoon dirté," to which we were cordially invited by this prince of good fellows. In gross tonnage surely there can be no man in the country who ever has exceeded this popular solicitor's last year's business. Besides quality Ed is a quantity man.

Meeting of the Pennsylvania Association of Master Plumbers a Striking Success at Pittsburgh.

The Largest Number of Master Plumbers Ever Attending a State Convention in Pennsylvania Was Noted at the Nineteenth Annual Meeting of the Keystone State Master Plumbers' Association.

AS early as Sunday Philadelphia delegates to the number of 35 and Harrisburgh with 30 or 40 of its constituents, including Lancaster, were early in their attendance. Other sections of the State sent large and enthusiastic delegations, and it was easily seen that so far as enthusiasm and interest was concerned the annual meeting scheduled for the Fort Pitt Hotel would be a record breaker.

Tuesday morning the delegates, guests and others interested gathered in the wistaria room, where they were warmly welcomed by President Hanley, of the Pittsburgh local. Realizing the amount of work to be accomplished before final adjournment, Mr. Hanley cut his talk as brief as consistent with the conditions, and introduced Secretary O'Brien, who represented the Mayor, upon urgent business bent in the Capitol of the State, where, said Mr. O'Brien, more reformers are now gathered to do nothing than ever before in the history of the Commonwealth. Mr. O'Brien in speaking for the Mayor told of the accomplishments of that gentleman since taking office. He mentioned the civic advance, and urged the visitors to pay close attention to the many improvements effective since the Mayor took up the reins of government. He mentioned the Mayor's faith in the efficiency of organization work, and presented the freedom of the city. Mr. O'Brien's cordial welcome was immensely enjoyed by all, and his withdrawal from the room was the signal for an outburst of applause.

President C. K. Will urged the closest attention upon the part of the delegates, so that whatever business that required attention might be run through as expeditously as the circumstances would warrant. The committee upon entertainment had arranged for a 50 mile auto ride through the city and environs for Wednesday afternoon, and it was important, if the delegates were to enjoy the expedition en auto, to be prompt in their attendance at the various sessions.

Richard H. Watson, plumber emeritus of Philadelphia, and the grand old man of the Pennsylvania organization, the daddy of them all was introduced and spoke of his activity of 62 years in the plumbing business. Mr. Watson has been a master plumber for 51 years, and the city of Philadelphia can boast of some very successful men in the craft who graduate from Mr. Watson's employ. It is a fact that when the boys discovered the time for their embarking in business upon their personal account, Mr. Watson would take them to the supply houses and arrange a line of credit for them. The proper spirit, broad and elevating, which if adopted more generally will do away with all jealousy in the craft and lead us on to Eutopia.

President C. K. Will appointed committees as follows: Auditing—C. Bachoffer, Reading; M. Purtill, Pittsburgh; Richard Turner, Wilkes-Barre. Resolution—Robert Purse, Johnstown; Wm M. Logan, Harrisburg, and Jacob Dome, Reading. Credential—Harry L. Righter, Philadelphia; S. S. White, Pittsburgh, and George Gast, Lancaster.

Claude List, Pittsburgh, the sergeant-at-arms of the local association, was requested to fill a similar position at the convention. His assistant was T. F. Scanlon.

President F. J. Hanley, of the Pittsburgh association, then announced the banquet for Tuesday night, the auto ride, the auto ride for the ladies, the theatre party, and such other features as would keep the ladies busy while their liege lords were grappling with affairs of state in the meeting.

Joseph Weldon, former national director, Pittsburgh, mentioned the advantages of the wistaria room over the English room. Its very compactness would bring us all together, said he, and we could more intelligently listen to the arguments, and expressions of opinion of the delegates in debate.

Chairman C. W. Fisher, for the Legislative Committee, rendered his report, which held the close attention of all the delegates during its reading. We are pleased to

PENNSYLVANIA CONVENTION DELEGATES AND GUESTS ATTENDING BANQUET AT FORT PITT HO

present the same herewith to our readers:

To the President and Members of the Pennsylvania State Association of Master Plumbers:

Gentlemen—The Legislative Committee beg leave to submit the following report. As this session of the Legislature is a record-breaker so far as the introduction of bills is concerned, it is also a record-breaker for plumbing bills.

First in order is House Bill No. 20 offered by Representative Frey, of York. This bill amends the present second and third class city law by striking out the words "having a system of sewerage and water supply."

Representative Bergey, of Lansdale, introduced House Bill No. 209. This bill extends the provisions of the present second and third class city laws to boroughs and townships of the first class. Your committee considered this a good bill, but the Legislature did not, and it was defeated.

Representative Piper, of Philadelphia, introduced House Bill No. 438. This bill requires foundries to be provided with toilet rooms and water closets. We are glad to be able to report that this bill has been passed and approved by the Governor.

Representative Moses, of Johnstown, introduced House Bill No. 803, making it mandatory on the part of cities of the third class to appoint a plumbing inspector and to provide a suitable salary for such officer.

Representative Malie, of Pittsburgh, introduced House Bill No. 1236, which carries with it a number of amendments to the present second and third class city laws.

Representative O'Neill, of Philadelphia, presented House Bill No. 1382, which endeavors to have separate specifications for the construction and alteration of plumbing, heating, ventilating and electrical work in public buildings, and the contract of such work is to be let to the lowest bidder.

Representative Steele, of Pittsburgh, introduced House Bill No. 1419, which requires authorities of each city and borough within the commonwealth having a population of more than 15,000 inhabitants to erect and maintain public comfort stations, etc.

Representative Neely, of Pittsburgh, presented House Bill No. 1504, which amends the present second and third class city laws.

Owing to the Legislature still being in session it is impossible for your committee to tell the fate of these bills. The early bills, with the exception of bills Nos. 209 and 438, have passed the House and are in the Senate for concurrence. Your committeee is hopeful, however, for the passage of a number of these, but owing to the flood of bills we may be disappointed, especially if the sponsors of the bills are uninterested. It will be necessary for those having the bills in charge to urge the committees as much as possible so they come before the legislative bodies.

From the experience gained at this session of the Legislature, as well as during the past, your committee is further convinced that the recommendations of past years apply at this time, and we recommend that the convention direct the incoming Legislative Committee to prepare what is to be known as the "Pennsylvania State Plumbing Code," to submit this code to the State health authorities and the prominent boards of health within the commonwelath for approval, and have same ready in time for the next Legislature, which will be held in 1915. Your committee believes that if a plumbing code can be agreed upon, as above suggested, and after same becomes a law, it would be an easy matter to defeat the many bills which are presented from time to time. It has been a difficult problem for your Legislative Committee to handle this work creditably. In the first place we were unable to do very effective work on account of the lack of funds. It was with the greatest difficulty that we were allowed funds sufficient to hold one meeting, and such an important committee should have an unlimited amount of cash so as to be able to do the work which presents itself from time to time. No one is able to foresee how much is required until the time comes. Your committee was handicapped in another direction equally as serious as the absence of funds. In the number of bills presented your committee was consulted but once prior to the introduction of the bills.

We cannot expect individuals to consult a committee of our organization, but we think every member or local that may desire to offer a bill affecting plumbing should submit a copy to the Legislative Committee for its approval. You can readily appreciate our position. We discover these bills and wonder who is back of them. After some inquiry we learn of their origin.

We would recommend that some steps be taken so all bills coming from members of this organization be first submitted to the Legislative Committee. Respectfully submitted,

C. W. FISHER, SAM BARNES, M. PUSTILL, J. EARLY, ROBT. PURSER, Legislative Committee.

Joseph Weldon presented a resolution which was as follows:

Whereas, The present conditions of conducting business in general is radically different from what it was at the inception of the National Association of Master Plumbers, and

Whereas, Conditions particularly in plumbing trade have been such that in spite of our loyal efforts to support and maintain, in spirit and by letter, the so-called protective policy of the national association, the plumbing business, as a whole, has been unprofitable and its future discouraging; be it

RESOLVED, That this convention instruct delegates to the next national convention to present a resolution authorizing the national president to appoint a commission to make such investigation that national association directors decide whether or not the bill prohibiting plumbers from selling plumbing materials they do not install should be abrogated, and to advise as to any other changes that will improve the present system; furthermore, that special expert assistance be authorized if necessary to accomplish this end.

Above resolution concurred in.

ROBT. PINAL,
WM. M. LOGAN,
JACOB SOME.

John R. Early, Washington, Pa., presented a resolution having to do with the change of the laws regarding first and second class postage.

For the Sanitary Committee, Chairman Titus deferred its presentation till the afternoon session. When it was finally presented it referred to improvements suggested by the committee, looking to the betterment of public health, suggesting public comfort stations, wherever possible to secure them, and such other matters as bubbling fountains.

Joseph Weldon requested information from Chairman Fisher as to the probability of eliminating the general contractor from private work in the event of the passage of the law separating plumbing, heating and electrical work from the general contract upon public work. It was explained that the doing away with the general contractor upon public work would serve as an entering wedge, and would render much easier the effort to pass him up on private work as well.

In this connection a resolution of the Harrisburg association published in all local papers was read. Attention of the craft throughout the country is called to these resolutions, which have been effective since April 1, 1913.

The undersigned master plumbers of the

CELEBRATION OF NINETEENTH ANNUAL MEETING OF KEYSTONE STATE M. P. ASSOCIATION.

city have agreed to the following resolution to take effect April 1:

Whereas, The making of contracts for plumbing with persons other than owners or their agents has caused serious misunderstandings between all concerned; and

Whereas, These contracts have often caused the master plumbers a great loss of money; and

Whereas, By dealing with contractors instead of with the owners or their agents, the quality of plumbing has been greatly reduced.

Be it Resolved, That in order to protect ourselves from the many unpleasant experiences, we, the master plumbers of the city

D. F. DURKIN, PHILADELPHIA.
President Pennsylvania State Association.

of Harrisburg, refuse to submit bids or make contracts for plumbing, etc., with any person except the owner or his agents.

Signed: J. Stephen Marshall, P. H. Vaughn, Wm. M. Logan, Jos. W. Morrow, M. H. Baker, Wm. K. Bumbaugh, Fisher Bros., Jas. H. Lutz, Jr., R. J. Clouser, R. C. Cashman, H. S. Lutz, I. R. Lyme, H. J. Wolford, Christian Nauss, Eugene F. Fager, Bayles & Shellhammer, Jno. Blessing, H. W. Ritter, Frank F. Kramer, J. D. Coover, Chas. M. Froelich, Chas. F. Crabbe, E. C. McKee, R. J. Flowers, E. C. Rauch, Wm. C. Wykoff, F. W. Wright, L. W. Mehring, M. F. Saul, Chas. C. Hockley.

C. W. Fisher, of the Harrisburg local and chairman of the Legislative Committee, briefly but intelligently discussed the general features of the various bills referred to in his report. All of the bills, said Mr. Fisher, are here with me, but their length and the lack of time precludes more than a general reference to each.

Delegate Helder, of Reading spoke of the importance of the legislative committee. He mentioned the lack of funds which prevents more effective work in a measure of this committee. He mentioned a visit made in company with Mr. Fisher upon Dr. Dixon, who is heart and soul with the master plumber of Pennsylvania. Bills should be discussed by the locals, and their delegates instructed so that when the annual convention is held the Legislative Committee would then be in position to know the wishes of the various sections of the State regarding impending legislation.

For the Credential Committee Chairman Harry L. Righter, of Philadelphia, reported as follows:

Allentown—Joe. Sieger, Wm. Hausman, E. P. Saeger, H. Christ, E. D. Swoyer.

Johnstown—Robert Purse, Harry Truby, P. A. Barnhart, Ray Smith.

Lancaster—Geo. W. Gast, Edw. P. Stump, A. A. Gutfleisch.

Northwestern Association—M. C. Judd, Charles W. Wilson.

Erie—F. L. Albracht, John F. Huber, E. W. Henderson, James Purcell, Edw. McLean, Ed. Padt, F. J. Miller, H. B. Himrod.

Chester—Wm. Fowden, John Blayler.

Reading—Ed. S. Van Denberg, C. H. Bachoffer, Howard Fritz, Geo. E. Hames, Amos F. Lorah, Wm. B. Helder.

Harrisburg—P. H. Vaughn, Wm. K. Bumbaugh, H. S. Lutz, J. H. Lutz, Jr., C. W. Fisher, G. W. Palmer, R. C. Cashman, C. Nauss, J. W. Morrow, M. F. Saul.

Southwestern Association—F. F. Evans, Harry L. Burd, Albert King, Chas. P. Craig, Joseph Tipton.

Uniontown Local Association—Albert King, Chas. O. LaClair, Chas. L. Titus, Robinson & Walters.

York—Jacob Some, J. A. Shive, M. O. Lewis, F. W. Behler.

Wilkes-Barre—Geo. L. Bray, Richard Turner, T. H. W. Shoemaker, Garrett T. Farrell, Chas. F. Lewis, Edward Brislin, J. H. Campbell.

Washington—J. E. Iverson, C. E. Houston.

Sharon—O. L. McCartney, J. E. Elway, Geo. R. Stone, D. Menchey, Wm. M. Bum, S. F. Grilly, J. W. Haines, S. N. Bumbaugh.

Pittsburgh—S. L. White, J. C. Leubin, T. F. Scalnon, Hugh M. Hay, J. H. Ley, A. M. Fadden, M. Purtill, E. M. Tate, I. A. Weldon, W. H. Rowswell, Robt. Henderson, F. J. Scheib, Harvey Lewis, Jr., A. Redenbaugh, A. J. Zilliox, George Sheets, G. W. McKay, F. J. Hanley, Geo. Rodgers, Claude E. List, C. L. Bachman, Jr., Jacob Soffel, F. H. Hoch, W. N. Sauer, W. J. Elkin, Mack Smithy, T. R. Marshall, Geo. B. Stewart, J. W. Scott, Chas. Ruffing, J. D. Stanton, C. M. Swift, W. E. Rowbottom, Frank McKnight, D. W. Dooley, Ira A. Mann, R. J. Hannan, Geo. F. Schade, Jr., J. J. Kennedy, H. R. Wickes, J. H Sweeney.

Philadelphia—Wm. McCoach, Geo. F. Uber, Geo. Moeller, S. Louis Barnes, D. F. Durkin, Jr., Geo. W. England, H. B. Lentz, Geo. Wisner, Frank Horowitz, R. H. Pflug-Felder, Geo. R. Burlingame, W. H. Doyle, T. B. Dale, F. B. Britton, Wm. B. Fox, J. E. Schenck, Gregor Drummond, R. H. Watson, Wm. Boal, H. L. Righter, Jacob Bugger, Wm. A. Busby, Frank Michelbach, Jos. Seiberlick, D. D. Whealen, Hugh McElwee, F. P. Speth, Geo. S. Holmes, F. Weidemann, Wm. H. Ambrose, Edward J. Toy, Martin J. Morgan, Geo. S. McGinness.

C. K. WILL, LANCASTER, PA.
Ex-President Pennsylvania State Association.

D. F. Durkin, Philadelphia, moved that the report of the Credential Committee be considered the roll call of this convention.

While Vice-President Palmer, LeMoyne, Pa., occupied the chair, President C. K. Will, Lancaster, read a portion of his report. The importance of the final accounting of the Chief Executive of the State, rendered it wise to defer its reading until the afternoon session, as the suffragette phalanx was busy gabbling in the adjoining corridor, and a fine imitation of Babel was in evidence.

GEORGE PALMER, LEMOYNE.
Vice-President Pennsylvania State Association.

Just as an adjournment was in order, Harry B. Lentz, one of the State's prominent delegates, exuded a burst of flame from his vocal orifice.

TUESDAY AFTERNOON SESSION.

When the meeting was re-convened the first order of business was the reading of President Will's report. From the wistaria room a change for the better was made to the English room, where there was room a plenty, and where the necessary noises in a hotel the size of the Fort Pitt could not permeate.

Gentlemen—At the last annual convention held in the city of Philadelphia, April 16 and 17, I was selected to head your organization for the ensuing year, and upon receiving the books and papers from retiring President White, your secretary, G. F. Reichmann, and myself, immediately got to work. In going over the books we found that when all outstanding bills were paid the State treasurer would have a balance of about $5.58 left in his hands, to start the new administration.

The following letter of greeting and appeal for funds to send delegates to the national convention, to be held at Salt Lake City, was mailed to the secretaries of each local and to all individual members of the association:

To the Members of the Pennsylvania State Association of Master Plumbers, Greeting:

In accepting the office of State president, I fully realize the great responsibility placed upon me as your pilot for the coming year, and in order to be successful we must all pull together and work as one man.

I want your co-operation; I want your suggestions; I want you to write and tell me how you think the membership can be increased, and how the welfare of the members in general can be improved upon.

In order for your president to be successful you must all put your shoulders to the wheel. We

Peck's "Yale" Shower

The **"Newton" Combination Shower and Shampoo Controlling Valve** (illustrated below) used in the backbone of this shower prevents the valves from being left open by the bather. **It compels the closing of both shower valves,** thus preventing the cold water from circulating through the hot water pipe.

Another pleasing feature of this valve is—**by simply throwing the lever from left to right the water is diverted to either the overhead shower or the shampoo.**

Peck's "YALE" Showers are Packed in Individual Boxes.

Send for "Handy Booklet" of Showers.

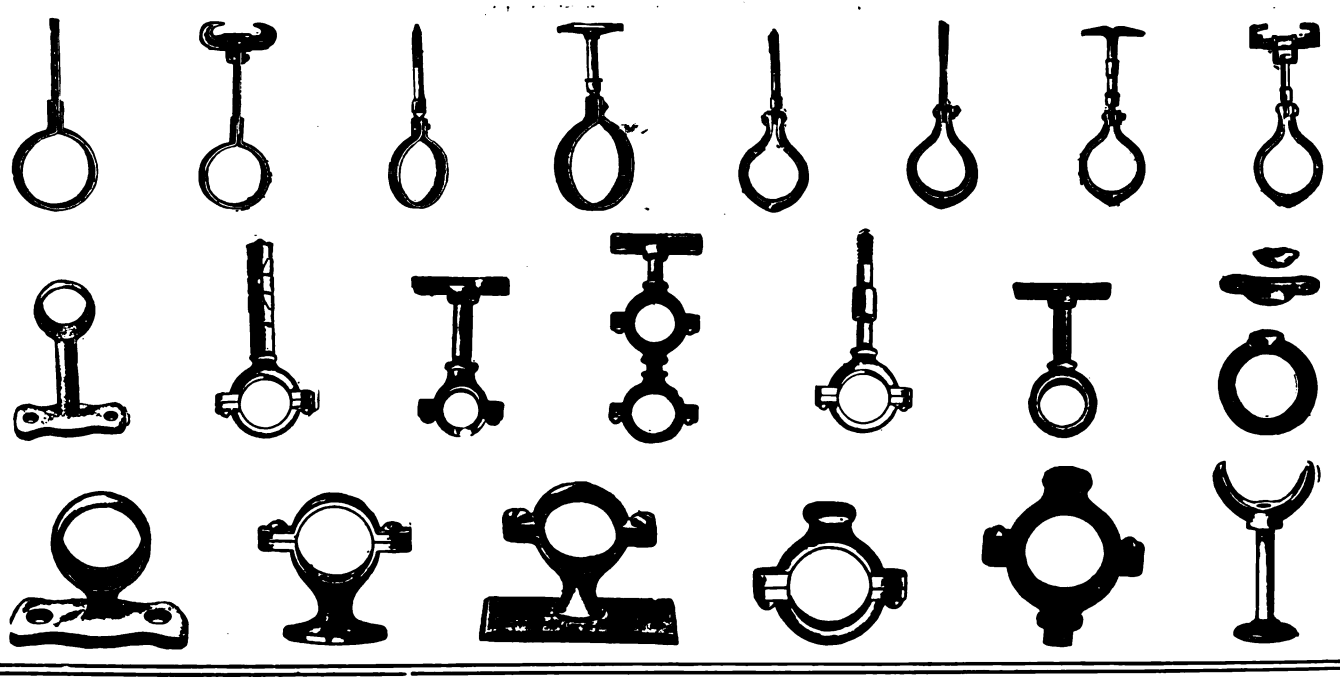
The Peck Bros. & Company

127 Chestnut St.
NEW HAVEN, CONN.

219 W. 49th St.
NEW YORK

For Price on These Hangers and Other Specialties

Write now to **FEE & MASON,** **81 Beekman Street NEW YORK**



must all get busy. Will you not, as an association, or an individual member, look around and see if there is not some good fellow on the outside that would make a good member for your local association, or an individual member for the State and national associations?

There is one thing in particular to which I wish to call your attention. That is the annual State per capita tax, which, in my estimation, is entirely too low, and should be increased to $2 per year, so your officers' hands would not be tied for want of funds with which to build up such an association as the great State of Pennsylvania should have.

At the rate of the present per capita tax which you pay, you are protected as no other trade organization in the world is. It was recommended at the convention held in Philadelphia, April 16 and 17, 1912, that the incoming president send out an appeal to the various locals for a voluntary contribution for funds, in order to pay the expenses of the delegates to the national convention. Brothers, this state of affairs should not exist in an organization such as we have, but your officers this year are compelled to ask you to contribute your mite toward sending the delegates to the national convention, and next year, when we meet in Pittsburgh, let us vote to raise our per capita tax so that your officers can run the business of the State association as it should be, and not be compelled to pass around the hat in order to raise funds to meet their obligations, and pay their officers' legitimate expenses in order to transact the business of the association.

The past annual convention was one of the best we have ever held, not only in the number in attendance, but in the way of an education in matters pertaining to the trade. Tre address of National President Eynon was one that chased away that tired feeling and contained enough food for thought to keep your digestive organs working overtime for the next year to come, and my only regret is that we have not enough money in the State association treasury to have same published in pamphlet form, so we could mail each and every member of the State association a copy of same, for I believe that it would do all a world of good. Every member should have the proceedings of this convention, but owing to our low per capita tax (which just about meets our running expenses) your officers do not feel justified in having same printed and mailed to each member. Now, brothers, get busy in the next year. Let me again remind you to instruct your delegates to the next convention to vote to increase your State per capita tax, so that your State association can be run on a successful but not extravagant basis.

There is one thing I wish to call your attention to, and that is pay your capita tax, and send in the corrected list of members of your local promptly when same is called for by your State secretary, so that we, as officers, need not pay the national association for members that have been dropped from the membership list of your local.

As president I take this opportunity of expressing my appreciation of the honor of my election to the highest office in my State association in the hands of my fellow master plumbers to bestow upon one of their members, and to say that I fully recognize the great responsibility of the office. As I have been intimately connected with association work for the past 20 years, I take up the work as president feeling sanguine that, with your co-operation, the association cannot help but grow and succeed, until we have the greatest State organization in this broad United States.

Yours very truly,

C. K. WILL, President.

In response to the above letter of appeal for new members I wish to state that there were only six locals offered any assistance whatever.

As to the appeal for funds to send delegates to the national convention, the following locals contributed: Philadelphia, $100; Pittsburgh, $70; Lancaster, $17; South Western, $25; Wilkes-Barre, $10; Johnstown, $25; making a total of $247. And an individual contribution by H. J. Righter of $50, which he paid out of his own pocket towards his own expenses as a delegate to the Salt Lake convention.

APPRENTICESHIP CERTIFICATES.

At the last annual convention your officers were ordered to have apprenticeship certificates printed. Your instructions have been carried out, and the various locals and individual members notified that same were ready for distribution at the price of 50 cents per piece, to cover cost of printing, mailing and engrossing. The following locals have been supplied with same: Philadelphia, Pittsburgh, Lancaster, York, Harrisburg and Allentown. Take sample of certificate along to convention.

MEMBERSHIP CERTIFICATE.

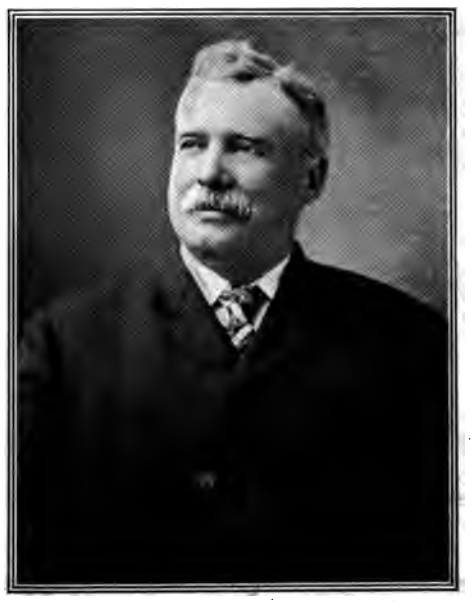
I also recommend that the incoming president and board of directors be instructed to adopt and issue a membership certificate to each member of the association, with the date of the year that same is issued, printed on same in large, bold type, so that a member has something to show that he is a member in good standing in his local and State association.

I would also recommend, wherever practicable, that the local associations eliminate the general contractors so far as to not furnish them with an estimate, and to deal directly with the owner or his agent. We all know the difficulties we sometimes have with general contractors, and how irresponsible they are in so many cases. At least they are not so desirable to deal with as the owner or his agent.

LEGISLATION.

As to legislation, the chairman and members of that committee have been on the job the past year, as their report will show. And I will not touch on that subject leaving it for that committee in their report.

Under this head I would recommend that the incoming Legislative Committee be instructed to draft a State plumbing code similar to the Philadelphia act, so that same would take in the whole State. I also recommend that the committee draft



WILLIAM M'COACH, PHILADELPHIA, PA.
Treasurer National Assn. of Master Plumbers.

a bill similar to the New York State bill, in reference to the letting of the plumbing, heating and gas fitting in State, county and municipal work.

The above bills to be gotten into shape and ready for presentation for the next legislature, which will convene in 1915.

CORRESPONDENCE.

We have had a great deal of correspondence during the past year trying to induce the local associations to increase their membership, which met with poor results. The locals in general have not been holding their own, some have lost in membership and others are about holding their own. The following associations and individual members we have had to drop from the roll for non-payment of dues when we assumed office:

Association.	Members.	Back dues.
Indiana	5	$15.00
Shenandoah	7	39.00
Susquehanna	5	22.50
Individua's.		
Miller Hardware Co., Marietta, Pa.		3.00
B. H. Hersrey, Manheim, Pa.		3.00

Making a total loss of 19 members and $82.50 in loss of dues.

The following is the standing of the different local associations and individual members:

I wish to thank the various local associations who have increased their membership, also National Director S. Louis Barnes, State Vice-President D. F. Durkin, Jr., ex-State President C. W. Fisher, and the president and members of the Wilkes-Barre local association, for their kind assisistance in organizing the following new local associations:

	Members.
Scranton	19
Hazleton	6
Pittston	9
Berwick	4
Sharon	5

Making a total of five new locals with a membership of 43 firms, and an increase of members to the Wilkes-Barre association.

I wish to state that national and State associations are indebted to that old war horse, James B. Doyle, for the able assistance he gave the national and State officers in connection with the organizing of the Scranton local.

FINANCES.

In regards to finances we are in about the same condition that we were last year. If some of the local associations and individual members would not have contributed towards the defraying of the expenses of sending the State delegates to the national convention, we would be compelled to report a deficit instead of a small balance in the hands of the treasurer, when all outstanding bills are paid.

There seems to be a lack of interest taken by the locals in their immediate vicinity, as there are always a few good master plumbers who, if the proper person approached them, might be induced to become members of the association. In my opinion there is plenty of room for missionary work of this kind. You know as well as I that they who are near are in better shape to do missionary work than someone who is 50 or 100 miles away.

The average master plumber is usually walking around with a chip on his shoulder, waiting for the other fellow plumber to knock it off. He has always a grievance against his competitor, and the only way I see to overcome that is to get them into the association and have them learn that the other fellow is just as good a fellow as he is.

There are others who are tardy in sending in their dues, for the reason that they think the association is no benefit to them. They forget that the association stands for all that is good and imporant to them. The lay has passed when the jobber sells direct to our customers. We have better protection to-day than any other retail merchant, and that protection alone is worth 10 times the amount per year, as our per capita tax cost each individual member.

There are a few secretaries who might answer their correspondence more promptly, and not keep the secretary waiting for two or three weeks before they answer his communications or send in the corrected list for the red book, and thereby save the per capita tax to the national association, which they pay for members who they carry on the red book and have been suspended by the local association.

I take this opportunity to thank the secretaries of the various local, and officers of the State association who have answered promptly the correspondence referred to them, also the local associations and the individual members who have sacrificed their time to try to increase the membership of the State association.

Opinion of Court of Common Pleas of Cambria County, in Reference to Act of May 14, 1909—Which states that the Act of May 14, 1909, is defective for the reason that no reference whatever in that act is made to a salary or other compensation for the services of plumbing inspector, although payment for the services of the two plumbers acting on the examining board is provided for in Section 2 of the act. There is no express provision in the act making it the duty of the councils or of any other body to fix the salary or compensation of the plumbing inspector. If it be mandatory upon councils to make an appropriation to cover such salary or compensation, the duty is imposed by implication only.

PER CAPITA TAX.

There is one thing in particular to which I wish to call your attention. That is the annual State per capita tax, which, in my opinion, is entirely too low, and should be increased so your officers' hands would not be tied for want of funds with which to build up the membership of the association, and I earnestly hope that the matter will be taken up at this convention and successfully carried through.

I also wish to thank the national officers for the manner in which they looked after our interests

the past year, not only as to the business end, but financially for organization purposes.

I attended the national convention as one of your delegates which was held in Salt Lake City, July 16 and 17, 1912, and wish to state that same was one of the best your national association has ever held. For the benefit of the delegates here to-day and to the delegates who were selected by the State and various local associations, I wish to compliment you on your selection of delegates to represent you at that convention, for the reason that when the sessions of the convention were called to order, each and everyone of the Pennsylvania delegation was to be found in his place on the convention floor. I have referred the reporting of the proceedings of that convention to the other two delegates, who will read a report to the convention at the proper time.

STATE PAPER.

At the last convention we adopted the *Plumbing News* as the official organ of the State assocation. Dec. 7, 1912, your Board of Directors rescinded the action of the last convention held in Philadelphia.

In conclusion I wish to thank the Board of Directors for the support they have given me the past year, also the members of the Legislative, Sanitary and Apprenticeship committees. I want to commend the watchdog of the treasury, John H. Birchall, for the manner in which he guards our finances, some of you may have waited a while to receive your check from him, and I assure you he means it well, for he did not want to check out any money until the first of the month so that he would not loose the interest on his monthly balance.

I especially want to thank your State secretary, G. F. Reichmann, for the able assistance he has given me in administering the business affairs of the State association, and my only wish is that you give the incoming administration your loyal support and help build up the association so that it will be second to none in the union.

Yours fraternally,
C. K. WILL, President.

Dates for annual convention were changed by the following resolution:

RESOLVED, That Article III, Section 1 of by-laws reading:

"A convention of the State association shall be held annually on the *third Tuesday of April*, at such time and place as may be decided at the previous convention, unless for ample reasons the Board of Directors may appoint another time or place."

Be changed to read:

"A convention of the State association shall be held annually on the *third Tuesday of February and the Wednesday following*, at such time and place as may be decided at the previous convention, unless for ample reasons the Board of Directors may appoint another time and place."

Upon motion of Harry L. Righter the report of the president was ordered received and spread in full upon the minutes, and its recommendations referred to the Resolution Committee.

For the Apprenticeship Committee an excellent report was rendered by Jacob Dome, its chairman. It suggested longer terms of apprenticeship, education of the boys and a livelier interest shown in them by their employers. Business ethics, as well, should be instilled in their minds so that when they buckled on the armor as competitors they would be an advantage and benefit rather than a detriment to the craft. The report was ordered received and spread upon the minutes.

Secretary Reichmann rendered his report. It showed his activities in office and the many journeys upon which he accompanied the State president. It mentioned the loss of membership, due to dropping from the list for non-payment of dues, death and other reasons, and while the lapses due were remarkably large, the president and secretary were enabled through hard, consistent plugging to show an increase over last year's figures. The report was ordered received and incorporated in the minutes of the convention.

Treasurer John Birchall, Allentown, rendered his report. Receipts during the year amounted to $4,298.18, disbursements as per voucher $2,945.50, and left a balance of $1,352.68. Upon motion duly made and seconded Mr. Birchall's report was received.

Discussions anent interest trade features were generally indulged in during the afternoon session. At 5.30 P. M. an adjournment was taken to Wednesday at 9.30 A. M.

WEDNESDAY MORNING SESSION.

At 10 o'clock the morning session of Wednesday was called to order by President C. K. Will. National President Frank J. Fee and National Secretary Charles Murphy, New York, had arrived earlier in the morning; as had also former National President A. C. Eynon, Canton, O., the chairman of the National Trust Fund Committee. Other distinguished visitors were Charles Wilson, Youngstown, O., president of the Northwestern association, and M. C. Judd, Meadville, Pa., secretary of the aforesaid association.

S. LOUIS BARNES, PHILADELPHIA, PA.
Director of the National Association.

The final session of the convention was executive in nature, and continued uninterruptedly from early morning till 2 P. M., when it opened for the election of officers.

D. F. Durkin, Philadelphia, was unanimously elected president. The vice-presidents are George Palmer, Le Moyne, Pa.; Robert Purse, Johnstown, Pa., and Elwood D. Swoyer, Allentown, Pa.

As his secretary President Durkin selected that able, efficient and conscientious veteran association man, Harry L. Righter. The president's selection was ratified by the convention.

Upon motion duly made and seconded it was left to the discretion of the incoming board to choose the city for the holding of the 1914 convention.

Upon motion of Gregor Drummond, Philadelphia, votes of thanks were extended the retiring officers, the Pittsburgh local and the members of the press.

Pittsburgh Association Furnished Brilliant Entertainments.

The ladies enjoyed special auto rides, as well as luncheons and theatre party. They visited the city's imposing drygoods houses, as well as other stores of consequence. Upon Wednesday they became the guests of O. W. Gleason, the genial representative of the Peerless Selling Co. Mr. Gleason initiated an enjoyable midday function with a speech punctuated with hospitality and wit. When the luncheon, which was served at one of the leading hotels, was terminated a vote of thanks was given by the ladies to Mr. Gleason. Fortunate man.

Upwards of 100 were tripped through the city and environs by the Pittsburgh association in a cavalcade of autos. Some 50 miles were covered, and a stop was made en route for a collation, which was served at a fashionable and commodious road house. The weather was perfect for a trip of this kind. Dust even seemed to take on a special respect for the sanitarians of the Keystone State, and upon the return to the hotel, instead of being literally covered, as is usually the case on rides in open autos, a few flecks of the whistbroom only were necessary.

Some 75 visitors, who found it difficult to withdraw from hospitable Pittsburgh, were guests of the local at the game which occurred between Pittsburgh and Cincinnati at Barney Dreyfuss' baseball park upon Thursday afternoon. A splendid exhibition was indulged in, and the baseball fans of the party mightily enjoyed the combat. Charley Wilson secured permission from Youngstown to stay over and see the game with his friend O'Reilly. The continuity of enjoyment which the Pittsburgh members showed their friends from all over the State sets an unusual pace for other associations to follow in the future.

BANQUET THE STAR EVENT OF THE MEETING.

W. H. Roswell, chairman of the Banquet Committee, was ably assisted by George Rodgers, Jacob Soffel, S. S. White, E. M. Tate and John Paul. To the credit of these gentlemen and the Pittsburgh local it can be said that the banquet was a huge success.

A beautiful "green" booklet presented the programme of the speakers; the choruses of songs, and the menu, of which the following is a copy:

MENU.

Some hae meat, and canna eat,
And some would eat that want it;
But we hae meat and we can eat
And sae the Lord be thankit.

Crab Flake Cocktail.
Celery. Olives. Almonds.
Cream of Asparagus.
Chicken à la King. June Peas.
Orange Sorbet.
Tenderloin Saute Cardinal.
Potatoes au Gratin. String Beans.
Waldorf Salad.
Fancy Ice Cream. Assorted Cakes.
Cheese. Coffee.
Cigars.

The music was dispensed by Sheridan Sabres' Orchestra.

The Greater Pittsburgh Quartette rendered delightfully many vocal selections. They sang any number of popular songs, the choruses of which were joined in by the 250 diners present.

The introduction to the banquet was sounded by President Hanley, of the local

THE BRAYMAN WATER-TIGHT DRAIN BOX

Used by the New York Fire Department.
Prevents water from entering concrete.
Can be used for cast iron or screw pipe.
Costs no more than the old-fashioned kind.
Floor sweepings cannot clog up the drain pipe.
Water cannot leak through it to the ceiling below.
Guaranteed to prevent damp areas in yards and cellars.
Non-freezable, easily installed and adaptable to all conditions.

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"JIFFY" FIRE HOSE RACK CO.

723 7th Avenue **"Brayman Line"** **NEW YORK**

association, in a cordial address of welcome. Toastmaster M. H. Gottschall's opening address was one in which his powers of research were indubitably impressed upon his hearers. He took us away back to chapter 23 of Genesis, and other earlier departments of biblical history. His points were scintillating quips from this master humorist, and his good natured sallies won for him the admiration not only of those whom he introduced, but the audience as well.

Speakers of the evening were National Director S. Louis Barnes, Joseph Weldon, former national director; Jacob Soffel, James Hay, retiring President C. K. Will, and President Cochrane, Pittsburgh Chamber of Commerce, and R. Hartman Watson.

The festivities were terminated at midnight.

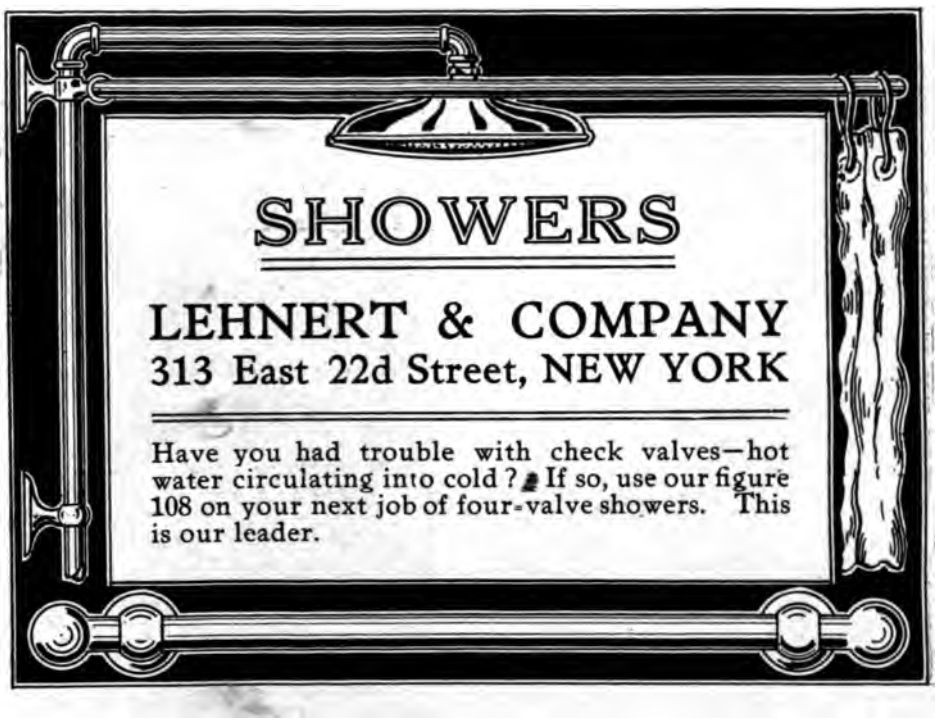
Officers of the Pittsburgh association are F. J. Hanley, president; J. D. Stanton, first vice-president; J. F. Matter, second vice-president; E. M. Tate, secretary and treasurer; Claude E. List, sergeant-at-arms; W. H. Roswell, ex officio. Members-at-large are M. S. Martin, Adam Redenbaugh and H. R. Wickes.

President C. K. Will and Retinue Occupied Special Car.

PRESIDENT C. K. WILL (retired) and wife, with G. F. Reichmann and wife, A. A. Gutfleisch and wife, George Gast, Lancaster; E. D. Van Denberg and wife, C. Bachoffer and wife, George Haines and wife, Reading; E. D. Swoyer and wife, H. L. Christ and wife, John Birchall, Allentown; C. W. Fisher, George W. Palmer, W. M. Logan, H. S. Lutz and James H. Lutz, Jr., P. H. Vaughn, R. C. Cashman, William Bumbaugh, H. J. Wolford, Harrisburg; Wm. B. Helder, Howard Fritz and H. W. Bell, Reading, Pa.; Jacob Dome and President J. A. Shive, York, journeyed to Pittsburgh in a special Pullman. This imposing delegation, next to Philadelphia, was the largest one present at the convention.

Plenty of Work in Bayonne, N. J.

H. S. WINTERHALTER, sanitary inspector of the Bayonne, N. J., Board of Health, in a report filed with that body April 17 said the estimated cost of plumbing and drainage for the month was $14,437. Jobs filed and on hand during the month numbered 150. There are on hand at present 103 jobs.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Massachusetts State Association Convened April 9, 1913.

IN the presence of upwards of 100 delegates from 35 locals in affiliation with the State organization, and representatives from Nashua, N. H.; Providence, R. I.; Lewiston, Me., and New York City, N. Y., President James S. Cassedy, Cambridge, called the regular annual meeting of the Massachusetts State Association of Master Plumbers to order on Wednesday morning, April 9, 1913, at a few minutes after 11 o'clock, in Heyward Assembly Room, Boston, Mass.

P. A. Lang, of the Boston local, was selected to serve as sergeant-at-arms. The credentials committee, which immediately went about its duties, embraced the names of George W. Smith, Springfield; Ernest W. Coombs, Peabody, and T. F. Murphy, North Chelmsford. Upon the auditing committee were the following: G. W. Hallett, Barnstable; James A. Ryan, Easthampton, and L. W. Stevens, Boston.

Secretary John J. Vogel read the minutes of the previous meeting, which were approved by the convention. Mr. Vogel then read an official communication from National President Fee, which spoke of the healthy condition of the organization, and other matters of association interest. He dwelt at considerable length upon the general contractor, and mentioned the gratifying activity of 25 per cent. of the State organizations, who are seeking to have passed in their respective Legislatures a measure similar to the one now effective in New York State.

Secretary Vogel also read a communication from J. B. O'Toole, of O'Toole Bros., in which was mentioned the failure of certain jobbers of plumbing materials to notify their customers sufficiently in advance of change of prices. The communication mentioned that the practice of notifying the craft was followed by steam supply houses, but not by the dealers in plumbing supplies; and it prayed that some means to correct the injury might be effected. This communication was referred to the executive committee.

President W. W. Hughes, of the Minnesota association, addressed the president of the association a communication several months ago, in which mention was made of the urgency of regular meetings of the State presidents, and in which the president of the Massachusetts association was urged to write President Fee, of the "national," appointing a day for the meeting suggested. Mr. Hughes' communication also decried the entertainment features with which the national conventions are surrounded, recommending that these be dispensed with, and that all the available time be given over to the consideration of association affairs.

President Cassedy then selected the following gentlemen to serve upon the resolution committee: Jonas A. Larraway, Winchester; Edwin W. Cox, Boston, and Orren C. Poole, Boston.

A resolution submitted by Mr. Larraway was to the effect that net prices be submitted only to plumbers upon all materials to be installed by them.

The sanitary committee's report, signed by Robert Robertson and G. W. Hallett, was ready by the former. It mentioned the civic awakening in so far as improved

ROBERT ROBERTSON, BEVERLY, MASS.
President Massachusetts State Association.

sanitation of public and semi-public buildings was concerned, but regretted that this did not apply to railway stations. It also stated that women of a certain town were so wrought up over the indecent and unclean toilet accommodations in a certain railroad station that they applied to Board of Health, who referred them in turn to the State police, which latter body stated that they were not in position to act. Each member of the association was urged by the report to take up the matter with the proper railroad officials, to the end that these unsanitary conditions be remedied, and if a general interest is shown by our members our efforts will sooner or later be repaid.

The submission of the sanitary committee's report awakened a discussion of its features, in which President Cassedy, Messrs. Robertson, Hallett and Bradford took part. It was the consensus of opinion that the Boards of Health in the various localities had the power to order unsanitary conditions corrected, whether in railroad stations or elsewhere.

An interesting discussion was generally indulged in, the result of which was that the members should urge the selection of master plumbers upon the various Boards of Health. Tribute was paid to the physicians who are generally appointed to these offices, but great stress was laid upon the effectiveness, experience and capabilities of members of the trade who, through their skill and education, are better qualified than all others for work of this character.

The sanitary committee's report engendered considerable thought upon civic matters and civic responsibility. Upon motion of former National President Daniel G. Finnerty the report was accepted and ordered spread upon the minutes.

Chairman Robertson stated that he hoped the members all will devote their attention to the correction of the abuses referred to in the report. He also spoke of the activities of the Ladies' Improvement Society in Beverly, Mass., and the high-grade work which it had accomplished toward civic betterment and a cleaner city.

Mr. Connell, Somerville, took occasion to mention a similar society in his city, and stated that it would be a mighty good thing for all towns and cities to have similar associations.

Mr. Larraway mentioned the paradise in which he resides, in all save one thing—lack of public comfort stations. He mentioned the public park, which, on Saturdays, holds some 3,000 children and parents, but for whose comfort there are no retiring stations. He thought this matter should be brought to the attention of the Legislature. Chairman Robertson, of the sanitary committee, rose to remark that the law as at present constituted provides that the Board of Health is empowered to install public comfort stations in all towns of 5,000 inhabitants. He stated that in Beverly there were 300 bubbling drinking fountains that were bubbling fountains, and not the makeshifts to which Mr. Larraway humorously referred as being on hand in the Winchester railroad station.

It was at this juncture that Chairman Cox, of the resolution committee, rendered the decision of his committee on the Larraway resolution. At the same time Mr. Cox remarked that a committee be appointed to get after engineers and have eliminated from heating specifications

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Week Ending 191

DAY	DATE	HOURS	NAME OF FIRM AND LOCATION
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Mon.			
Tues.			
Wed.			
Thur.			
Fri.			
Sat.			

Name of Employee
Remarks

Used in conjunction with our job tickets on contract or jobbing work will simplify your bookkeeping and timekeeping.

Time and material of each section of a contract or each job should be entered in detail daily on the *Job Tickets* by the plumber in charge.

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"plumbers'" boilers. Ejectors should, he thought, as well enter the plumbing specifications.

The theme of the "shoemaker sticking to his last" was the burden of T. J. Ryan's opposition to the master plumber entering so many fields of endeavor. "Let us be plumbers in fact, and plumbers only," said he. Jonas Larraway spoke of the pleasure and high-browed installation of horse troughs, as compared with other necessary duties of the plumber, more arduous, somewhat lacking in nicety and not so remunerative.

Mr. Cox suggested, in connection with the report of the resolution committee, that the Larraway resolution as reconstructed be forwarded to all the dealers.

George W. Smith, for the credential committee, reported progress, and the chair requested this committee to continue its activities and report finally, if it could, soon after recess.

For the essay committee, one entitled "Business End of Plumbing and Heating," from the pen of James F. Trow, Salem, Mass., was read by its author. This interesting paper we are pleased to submit, and merely remark that its excellence of construction and wise reflections are its best recommendations:

As chairman of the Essay Committee I have little to report. I tried my best to get the two other members to present papers but so far I have failed to get results. I then realized it was up to me to deliver, so I have just jotted down a few thoughts on a line that is of intense interest to me, namely: "The Business End of Plumbing and Heating."

My first thought was this: How, after all the interesting and instructive articles on this theme that have been presented through the trade papers this year, can a mere plumber hope to hold your interest? The answer was, by giving facts and figures to show the actual results of the influence of those articles. This influence has been so widespread and potent that now where two or more plumbers are gathered together the theme of discussion is overhead expense, efficiency, etc., and it is discussed as intelligently as in other days was the question, "Shall the main trap be abolished?"

While the magazines have always been a help to the plumber, never before have they been such a power for good as in the past year. Two years ago at the national convention the cry was started. "The master plumber needs a business education," and in immediate response the editors of the various trade magazines and papers began a campaign on that line. They are especially efficient in reaching the plumber that we are unable to reach, the one who does not attend these meetings or even belong to the local association. The door of his mind is closed to us, and the only hope is to shoot in through his mailbox a shaft of wisdom by means of a trade paper, in the hope that it will awaken him to the true state of things and thus to action.

This campaign has not been on the financial end alone, but along broader lines of business education, such as salesmanship and publicity. A good sign of the advancement in salesmanship is the recent attitude of the Illinois Master Plumbers' Association, which, at considerable expense, secured as a lecturer at their convention, Dr. Stanley L. Krebs, who talked on the "Practice and Principles of Salesmanship. Advocating publicity everywhere, we hear the cry, "Educate the public." And as that plan has proved so necessary to other lines of business, surely there is need for it in the broad field of plumbing, heating, ventilation, lighting and cleaning.

Our part in the furtherance of these ideas is a constant self-education as to the latest practical devices and materials which are daily improving, and then in turn to use this knowledge to educate the buyer up to the point where he will appreciate and demand what is best for his own special purpose. The public should also be impressed with the idea that the system of drainage is the most vital feature in the construction of buildings of all sorts, from its direct relation to health.

In short, we must stop hiding our light under a bushel and let the public know what we are doing and the importance of our work and of good work. It comes hard to the old timer, but times are rapidly changing and now the more publicity we secure the more quickly will be understood and appreciated. It would take individuals unaided a long time to spread this "gospel of sanitation," and so it would seem advisable to have a national publicity bureau established by the national association under the direction of a practical publicity man, which would supply to like committees from the State and local associations materials and directions for its use.

The trade magazines have advocated these things and I trust the members will have read and digested the many articles to the end that some definite action may be taken at the coming national convention. To show the result, locally, of this uplifting influence I am proud to state that we have an association down on the North Shore with a membership of 26 and with an average attendance of 23 at our meetings. And this is how we have done it. We have something of interest for each meeting.

At one time Mr. Morgan's address was read and discussed, each member being provided with a copy. At another time five bids were secured on a set of plans, the parties not knowing for what purpose they were to be used. These members were notified three hours before the meeting and asked to bring their figures, which they did. They were then put on the blackboard, and made a deep and lasting impression on those present. The manner in which those figures were tabulated led to our drawing up an estimate sheet for both plumbing and heating.

We had three banquets at which we were addressed by "live wires" and which were looked back upon as "feasts of wisdom" as well; and a Summer outing which every member attended, which was breaking all records.

We have a treasury in excellent condition, and the future looks very bright, and we are fully determined from now on to get the "eat" out of heating and the "plum" out of plumbing.

FRANK J. FEE, NEW YORK
President National Association of Master Plumbers.

Vice-President Robertson assumed the chair and directed the meeting until recess. When Mr. Trow had finished reading his valuable contribution to the literature of the order, Mr. Connell, Somerville, moved that the report of the essay committee be accepted and spread in full upon the minutes. J. F. Tabeen, Salem, secured a vote of thanks for Mr. Trow, which the secretary was authorized to record upon the minutes. Thus is merit recognized and praise bestowed. James, we congratulate you.

Edwin W. Cox moved that the portion of Mr. Trow's paper referring to the establishment of a national bureau of publicity be referred to the national office. This was seconded by William A. Bradford.

National Director R. J. Welch stated that the proposition of a national publicity bureau was fathered by former National President David Craig in a communication from his pen which was addressed the national convention held in Salt Lake City, Utah, last Summer. Mr. Craig spoke upon this theme. Mr. Craig mentioned the high cost of living, and was in hopes that the national association might set apart a sufficient sum of money, to the end that installations of plumbing fixtures 20 years ago and of to-day might be compared in cost. To the credit and glory of the master plumbers' craft, said he, our costs have decreased as the quality has increased.

National President Fee took occasion to remark that the matter presented through Mr. Craig's communication in Salt Lake City was referred to the incoming executive board. The majority of that committee was of the opinion that the proposition was too costly a one to be indulged in at that time, due to the depletion of the treasury. This was the reason that National President Fee saw the urgency of doing away with a midwinter meeting of the board. The plan for the establishment of a publicity bureau was a good one, and one in which he was in hearty accord, but there were no funds to carry it out.

Vice-President Robertson then entertained a motion for a recess until 2 P. M., upon the report of Courier to the Commissary P. A. Lang, that all was in readiness on the floors below.

Luncheon was heartily enjoyed by all, and at quarter to two a substantial quorum of the delegates had returned to the assembly chamber. By 2 P. M. President Cassedy called the meeting to order, and the afternoon and final session of the convention was under way.

President James S. Cassedy, whose term of office has been signally successful for various reasons, then read his annual report. His activities in connection with officers of his cabinet and members of the national board and national committees of which he has been a member were briefly but compellingly set forth in his final accounting. Modestly enough, and characteristic of this forceful official, he credited others with the great and commendable increase in membership. Under President Cassedy the work of the order has progressed with value and dignity. The president's report was well received by the delegates present. Upon motion it was ordered received and spread in full upon the minutes.

Secretary John J. Vogel's report was then presented. It showed the activities during the year of Mr. Vogel in connection with the president, and the many journeys through the State on organization work. It mentioned moneys received and disbursed. Sixty-six new names had been

added, and a net paid membership of 405 was shown. It mentioned as well the meeting of the special committee with the jobbers. Thirteen new applications had been received at this meeting, 11 of which came through Jonas Larraway. The report was referred to the auditing committee.

Treasurer O. S. Kendall's report accounted for receipts and disbursements by voucher, showing a net balance of $381.24. The excellence of the report and the correct manner in which Mr. Kendall has conducted his office for many years, prompted former State President William H. Hill, Marlboro, to have extended a vote of thanks to the venerable treasurer, who, hoped Mr. Hill, will be with us for a long time to come.

The largest and most enthusiastic attendance ever present at an annual convention of the Massachusetts State association was indicated by the report of Chairman George W. Smith, of the credential committee, which follows:

Attleboro—H. L. Perry.
Athol—F. E. Bond.
Beverly—Robert Robertson, Robert Robertson, Jr., F. W. Williamson.
Boston—John W. Zerringer, P. H. Blake, A. A. Thompson, B. F. Godfrey, F. F. Muldowney, W. P. Jones, J. C. Kelley, C. H. Cronin, Frederick H. Capper, Orren C. Poole, John J. Vogel, Michael Ahern, David Craig, Edward C. Kelley, Daniel Shannon, Edwin W. Cox, Isaac Riley, Joseph C. McCarron, D. W. Nichols, J. Preston Perham, P. J. Sullivan, L. W. Stevens, William J. Nason, D. J. Duggan, Daniel G. Finnerty, P. A. Lang, C. A. Bray, C. J. Murphy, James S. Cassedy, D. T. Harrington, Patrick Callahan, Isaac J. Walters, H. J. Rittenhaus.
Brookline—Frank B. Connor, A. Frank Bonney, James P. Mahon.
Chelsea—C. Davis, C. W. Carter.
Dedham—D. Victor Reeves.
Easthampton—James P. Ryan.
Fall River—R. E. Fogwell, William H. Sullivan.
Fitchburg—F. J. Hart, T. B. Sheehan, C. W. Jenna.
Haverhill—J. E. Dugdale, O. F. Bennett.
Hyannis—H. S. Bond.
Holliston—George W. Winchester.
Holyoke—C. P. Lyman, F. H. Rivett.
Lowell—J. J. Millaney, Richard J. Welch, M. D. Carroll, C. H. Hobson, J. F. McMahon, William F. Farrell.
Lynn—John B. Feehan, George E. Ryan.
Magnolia—Frank A. Regan.
Marlboro—William H. Hill.
Medford—L. P. Bresnahan, Andrew F. Curtin.
North Chelmsford—Thomas H. Murphy.
New Bedford—E. P. Hirst.
Newburyport—R. W. Nelson.
Norwood—John A. Shannon.
Osterville—G. W. Hallett.
Peabody—E. G. Kelley, G. F. Woodbury, E. W. Combs.
Quincy—William A. Bradford.
Roxbury—E. G. Fennessey.
Reading—T. C. Fife.
Salem—James H. Trow, B. J. Driscoll, J. F. Cabeen, R. E. Dockham.
Sharon—John R. Gillespie.
South Framingham—James Sheldon.
Somerville—E. S. Stack, Edwin Connell, H. E. Campbell.
Swampscott—Mr. Philbrick, Mr. Pope.
Stoughton—D. Decon.
Springfield—George W. Smith, Andrew J. LeFleur, T. J. Ryan, J. W. Kennelly, H. W. Lloyd, J. G. Howland, Nelson O. Bliss, James J. Cotter, William J. Hyland, Thomas F. Drake, John Neylon, John J. Stamford.
Taunton—J. F. Whitmarsh.
Waterman—D. F. Keefe.
Winchester—James A. Larraway.
Woburn—W. G. Shelton.
Worcester—J. M. Pierce, J. C. Luby, William H. Tower, O. S. Kendall, John Sullivan, William H. Holmes, C. S. Ostberg, V. J. O'Donnell.
Guests—Frank J. Fee, Charles Murphy, H. B.

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Yours respectfully,

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PLUMBERS' SPECIALTIES

DeVoe, New York; E. W. Goss, Thomas W. Kerrigan, Lewiston, Me.; William J. Fogarty, Providence, R. I.; Fred T. Buxton, Nashua, N. H.

For the legislative committee a verbatim report was rendered by David Craig, in the absence of Chairman C. H. Cronin. Mr. Craig spoke of the meetings with the committee of the State Legislature, and the attention which was accorded the legislative committee upon the several meetings at the State House before the committee on finance. The urgency of the passage of the bill separating plumbing, steam heating, gas fitting, etc., from the general contract upon public and municipal work, was shown by the legislative committee.

James S. Cassedy, James E. Trow, P. J. Sullivan and D. J. Finnerty discussed the prospect of the bill's passage as presented by the legislative committee, and from the conversations had with the various members of the finance committee having to do with the reporting of Senate bill 115, the one in question, it unquestionably will become a law.

Mr. Cassedy spoke of the eleventh hour notice of its coming before the proper committee and how splendidy 40 or 50 members from throughout the State lent their presence in the chamber at the State committee meeting.

Upon motion of Delegate Mulraney, Lowell, and seconded by P. J. Sullivan, Boston, progress of the legislative committee was noted.

George W. Smith, Springfield, Mass., spoke of the difficulties which confronted the members in his section, where incompetent men were given journeymen's licenses. "This is a mighty serious matter with us. We are willing to spend money to have the law properly interpreted, and do not wish to burden the association with additional expense upon our behalf. We heartily desire a slight change in the wording of the present law which will check the abuse complained of. We desire your co-operation and support," said Mr. Smith, "because you men are upon the ground and know more of legislative procedure than do we." After discussion, pro and con, it was the sense of the meeting that the incoming executive committee have the matter of correcting the law referred to them with full power to act.

An executive session was then declared. From 4 to 5:30 P. M. the members listened to interesting talks on organization matters of moment by National President F. J. Fee and National Secretary Charles Murphy.

Historian Daniel Shannon, Boston, Mass., was requested to and did deliver a eulogy on former President and Financial Secretary John W. Cosden, Boston local, recently deceased. Expressions of condolence of the association were ordered forwarded to the bereaved family.

The election of officers was the next order of business.

State President Cassedy and State Secretary Vogel declined re-election.

The officers selected to serve during the ensuing year are as follows: President, Robert Robertson, Beverly; vice-president, George W. Smith, Springfield; secretary, L. W. Stevens, Boston; treasurer, O. S. Kendall, Worcester.

To the annual convention of the national association, to be held next June in Philadelphia, Robert Robertson, John J. Vogel and O. S. Kendall were elected delegates. As alternates, E. J. Connell, Somerville, and Jonas A. Larraway, Winchester, were selected.

Votes of thanks to the retiring officers, the Boston local and the trade press were then recorded.

Brilliant Function Held by the Masschusetts Master Plumbers' Assn.

TUESDAY evening, April 8, at the American House, Hanover St., Boston, Mass., the Master Plumbers' Association of the Bay State extended to its officers and prominent national, State and local organization guests the most successful banquet ever held by this honorable and progressive body of sanitarians.

Some 125 persons responded to the invitation of the committee to be present, and for a half hour a reception was held in the parlors of the hotel, so that, as per

JAMES S. CASSEDY, CAMBRIDGE, MASS.
Ex-President Massachusetts State Association.

schedule, the banquet was begun promptly at 7 o'clock.

Occupying chairs at the head table were National President Frank J. Fee, National Secretary Charles Murphy, Harkness B. De Voe, New York; T. J. Ryan, J. W. Kennely, Springfield; Eugene Goss, T. W. Kerrigan, Lewiston, Me.; State President James S. Cassedy, State Vice-President Robert Robertson, Local President P. J. Sullivan, R. J. Welch, Lowell, and W. J. Fogerty, Providence, R. I. Close at hand were former National President David Craig, former National Directors C. H. Cronin, Andrew H. Curtin, former National Secretary Daniel Shannon and other distinguished guests who have labored long and intelligently for the cause of sanitation and the betterment of the public health.

The proceedings, after a highly satisfying banquet of many courses, each more inviting than its predecessor, were opened by President P. J. Sullivan, whose address of welcome was initiated with English and Irish expressions of hospitality. He laid particular stress upon the loyalty and fealty of the master plumber, who, as he said, was always there when the bell rang, notwithstanding the severe competition which exists in the trade to-day, as it has for all time. He called attention to the presence of the dignitaries from the highest councils in the order, National President Fee and National Secretary Charles Murphy. Mr. Sullivan stated that the Mayor of the city, the Honorable Fitzgerald, would attend the function later on in the evening, provided some previous engagements in Roxbury would permit his so doing. The speaker expressed his cordial appreciation for the second election to the office which he was so proud to fill, the presidency of the local association, and spoke as well of the splendid spirit of fellowship and harmony so happily prevalent in the association. So much so did this excellent condition exist that all were anxious to take a hand in pushing the good work along. Mr. Sullivan, in bringing his mighty interesting and cordial address to a close, paid attention to the ability of Robert Robertson, of Beverly, who, said he, will be our next State president.

Mr. Robertson immediately took occasion to mention that his "boom had been launched." He mentioned the aggregation of plumbing interests known as the North Shore Plumbers' Association, of which, said he, there are 26 stalwart members, whose presence added glory to all functions of the craft. Cohesion of purpose would ultimately lead any cause on to success. "Gentlemen," said he, "we have in our association 26 members, and these men, I am proud to state, are present at this banquet." Having practised signals for some time behind closed doors, when our estimable toastmaster snapped his fingers and asked the North Shore Association of Master Plumbers to stand up for the adoration of their fellow banqueters, the gentlemen referred to stood at attention and blushingly acknowledged the applause which greeted them. "The fundamental principles of this organization, gentlemen," continued Mr. Robertson, "are friendship and sociability. Get acquainted with your neighboring craftsmen, as we have done, and the benefits of organization will assuredly, as in our case, assert themselves. Education of the master plumber and education of the public are desirable and necessary activities with which we must indulge ourselves without stint. At our meetings educational matters regularly are presented for instruction and advisement of our members, and the results obtained are shown in an improved ability to figure overhead costs and the avoidance of the many traps with which our craft is beset." Mr. Robertson urged all those present to regularly and consistently read their trade papers, all of them, and if no other time was found in which to attend to this necessary duty, to do so on Sundays, high-days or holidays.

James S. Cassedy, the State president, and member of the national trust fund committee, accompanied his introduction with a couplet from a country tombstone,

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which reads: "He who runs may read upon my tomb: I expected to be called but not so soon." Mr. Cassedy paid his respects to the various New England States which were represented, the gentlemen delegated to act as sponsors for them, as well as the national association officials present. He congratulated the State association upon its ability to attract so large and enthusiastic a body of craftsmen from all corners of the Commonwealth. Said he: "We were slightly in doubt as to whether we would have 75, or less; but, gentlemen, enjoy with me the fact that there are now seated in this hall 121 members and guests. This is the best gathering we ever held."

Mr. Cassedy, continuing, stated that to add 100 names to the red book meant the work of a lot of men, and those responsible for so remarkable an achievement were deserving of the greatest praise for their enthusiastic loyality. Said he: "Our association has shown a steady and continuous gain for the past seven or eight years, and with the timber it presents for selection of officers I can prophesy that it will continue indefinitely to present increased membership of desirable and legitimate master plumbers at each annual meeting." The theme of trade protection had its innings when Mr. Cassedy stated that of his own personal knowledge he informed us that in one of the largest dry goods emporiums in the city of Boston, despite the fact that the goods in a model bathroom were plainly marked as to price, the dry goods house in question refused to sell the material, but referred the intending purchaser to the manufacturer of the articles in question. Considering the great amount of money spent in advertising their goods by this establishment, he thought this instance would indicate the splendid protection enjoyed by the trade, which condition, naturally, has taken so many years to establish.

Richard J. Welch, Lowell, a member of the national board of directors, and a former honored president of the State association, followed Mr. Cassedy as an orator of the evening. In introducing this engaging gentleman Mr. Robertson said he was an honest man and a plumber. This co-ordination of admirable qualities, said he, reminded him of the tombstone which appeared in a certain cemetery in New England. It was labeled: "Here lies a lawyer and an honest man." The curiosity of the cemetery attendant was aroused by the study of the monument in mind by a little man, who, upon inquiry, remarked: "Land must be very high up here for them to bury two men in one grave."

Mr. Welch stated that he was glad indeed to observe so many members from the State, and particularly the North Shore association, 26 strong. "But Lowell, too, can distinguish itself at this festive board," quoth he. "We have a member who is as big as half of the entire delegation from the North Shore society." Whereupon he asked "Jack" Cotter to stand up, and when the mountainous Lowell adherent did so, it was seen that Mr. Welch had approximated the truth. In referring to the Philadelphia convention, he stated that President Fee would see that Massachusetts would present figures of increased membership which would place it in the front ranks of States showing addition to the ranks. Mr. Welch expressed his felicitations at the splendid gathering, and stated that the committee was happy indeed at the response to its most recent letter of invitation.

Thomas "Oak" Ryan was the next distinguished gentleman to be announced by Toastmaster Robertson. In introducing this veteran organization man, Mr. Robertson stated that it was sickness alone which kept Mr. Ryan away from a State or national convention, and that the illness necessarily must have been of a severe nature even to do that. Mr. Ryan stated that it would be no other association which would make him take a 100-mile trip to get

P. J. SULLIVAN
President Boston Master Plumbers' Association.

his supper. He urged the younger men to make a decent profit on each and every contract or piece of work with which they are connected. "So arrange your affairs that when you are old and gray," said he, "you will have something laid aside for a rainy day. Do not let the speculative builder, the real estate man and others which infest the trade get the benefits of your skill and education." In his interesting and instructive discourse on the ethics of the craft Mr. Ryan feelingly referred to the Craigs, the Cronins, the Kellys, Cassedys, the Welchs, the Curtins, the Rileys and the other grand old names which added luster to the association roster. A study of the accomplishments, ardor and helpfulness of these men, and their like, made him believe there was much in organization. He was glad that the plumber in New York got his money before the water was turned on, he facetiously said, and only hoped that he had entire charge of the key to the water service of Springfield, Mass., when he would be sure that his fellow craftsmen from that section of the State would receive their just deserts. He urged us all to make money, so that when the years advanced upon us we might be able to retire like the other merchants of the country with a competency to keep us in our old age.

T. W. Kerrigan, Lewiston, Me., was the next speaker of note. Mr. Kerrigan was introduced as a member of the organization who had made money in his chosen business. Mr. Kerrigan remarked that he and Engene Goss had tossed a coin to see who would address the meeting. His introduction was evidence of the ill-luck which befell him and the diners, as he was the poorer orator of the two. His splendid talk, however, belied his poor idea of his speechmaking qualities. Mr. Kerrigan warmed to his task, urging all to make a decent living profit on each and every job. He mentioned a meeting of the New England plumbers held in Boston 14 or 15 years ago, which he, with several others, attended, and which had inspired the Maine master plumbers to organize for trade betterment and protection. The impression which we present to the public is the one which they will carry. The exhibition of fixtures in plumbers' shops, he thought, made for the good of the craft. Particularly did he pay attention to the stock taking and bookkeeping methods of the craft. We all should acquaint ourselves with our books and the amount of stock on hand and the particulars of each separate piece of work, so that we would know just where we were at. Knowledge of these affairs would act as a stimulant to profit, as no man will continue to lose money at his business. The failures in the craft have been those whose methods were slipshod and who threw all ideas of proper cost accounting and bookkeeping to the winds. Whether we do a business of $1,000 or $100,000, we should have an intimate acquaintance with the cost of our labor and material, as well as the cost of conducting our businesses. Mr. Kerrigan wished that all the New England States were in closer affiliation.

Toastmaster Roberston stated that when he was a member of the board and when help was asked of the Maine members, it was cordially and promptly granted, which fact he took pleasure in mentioning at the termination of Mr. Kerrigan's interesting talk.

Fred T. Buxton, Nashua, N. H., the next speaker, was given a cordial welcome. "If," said Mr. Buxton, "we can't have an association in our State, due to geographical or other reasons, we wish to join yours. And should we not get together, we will ask that the boundary line of Massachusetts on the north be extended so as to take in Nashua." However, Mr. Buxton stated that movements were on foot for the organization of an association in New Hampshire, and he hoped that they might soon present as strong a front as does the State of Maine.

W. J. Fogerty, Providence, R. I., a prominent Rhode Island master plumber, and a success withal, was appropriately introduced by the toastmaster. "After a disastrous experience of the first three years of my business as a purveyor of up-to-date ideas to the American public," said Mr. Fogerty, "I made money, and have continued so to do." If circumstances will permit, he will take his wife and family across the Continent next year on a trip to San Francisco, and so enthusiastic an organization man is he that he promises to call on all the master plumbers whose paths he crosses on this long journey. Mr. Fogerty requested all to stand and toast the grand old men of the craft who had made our meeting to-night possible by their organizing in the old days and watching the ship of State so conscientiously that to-day we have the greatest organized body of merchants in the world.

Charles Murphy, New York City, national secretary, and president of the New York Plumbing Exchange, Inc., was cheered heartily as he was introduced. Mr. Murphy stated that the best test of the effect of work was its reaction upon the worker. If it ennobles, the work is good. "Therefore," quoth he, "the occupation of the master plumber is a most worthy one. Besides the monetary consideration there is great good accomplished by the craft for our fellow man, and herein we have cause for a real gratification." Mr. Murphy spoke of the great good which will accrue to the entire trade through reciprocal agreements with the journeymen. He mentioned concrete examples of the advantages enjoyed by the members of his association. The primary principle of the agreement was that the journeymen would refrain from working for those considered unfair, which decision is reached by a conference board composed of five journeymen and a like number of master plumbers. Such an agreement could be effective all over the country, in which instance there would soon be an end to the heavy losses which the craft suffers through the unvirtuous and scheming workings of speculative builders, loan men of sharp practices, etc. "If," said he, "similar reciprocal agreements were entered into with the journeymen by all local associations for one year as a trial, the conclusion would inevitably be reached that the craft would not be without them in the future. Mr. Murphy mentioned the almost total absence of labor difficulties in the New York market so far as the craft is concerned. In 30 years we have had two strikes and one lockout. In the past eight years no trouble at all has been experienced.

Mr. Murphy also spoke of the benefits which have been observed in the establishment of the Plumbing Exchange, composed of the jobbers of plumbing supplies and the master plumbers affiliated with the organization. The sale of materials is restricted to those legitimately engaged in the plumbing business. Matters of general trade interest are taken up and discussed; disagreements are presented to an arbitration board consisting of five master plumbers and five material men. The exchange has been operative eight months, and during that time many cases have been presented for adjudication. The justice of the decisions have never been questioned. It is a safe, convenient and economical way of adjusting difficulties between the members of the master plumbers' association and the various dealers.

In discussing "consequential damages" Mr. Murphy stated that it was unsound and unreasonable to expect a man to assume unknown liabilities. In this connection he cited the case of an East Orange, N. J., steam fitter who purchased from a Newark, N. J., concern coils guaranteed to withstand 150 pounds pressure. When the coils had been connected and 75 pounds turned on, the pipe ripped open, and the fitter had to install a new coil. He withheld a certain amount from his bill for recoupment, to which the dealer objected and commenced suit. From its initiation it went through the various court steps until it reached the highest tribunal. The decision of the lower court was in favor of the steamfitter, and this decision was approved by each court in turn, and finally by the court of last resort. He impressed upon his hearers that the amount withheld from the dealer for cost of coil and the consequent labor charges was sustained as being a reasonable action by the courts.

The fallacy of the fabulous wealth with which the master plumbers are supposed to be endowed was referred to by Mr. Murphy. He thought the trade press might well be engaged in contradicting the

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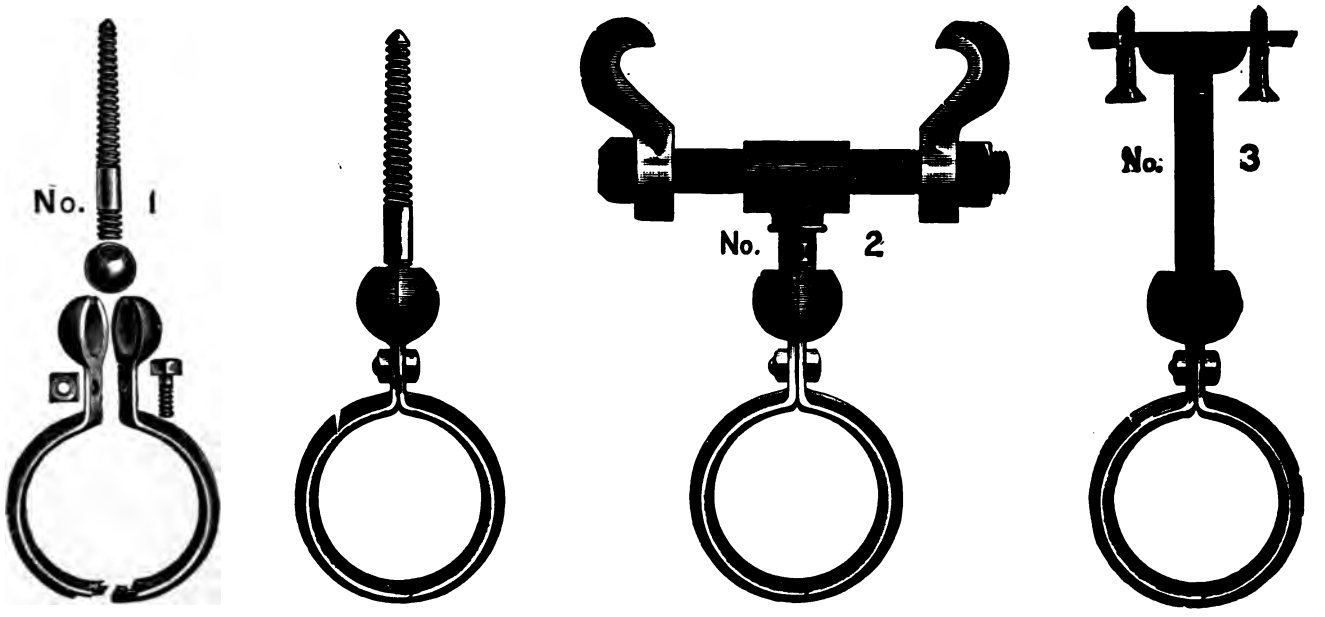

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ridiculous and unfortunate impressions conveyed to the public by the jokesmiths of the press and magazines. He mentioned the name of a prominent brass goods manufacturer, Adolph Mueller, of the H. Mueller Mfg. Co., Decatur, Ill., whose reputation for probity and close discernment of business conditions has long since been established. At considerable expense of money and time Mr. Mueller had formulated a comparison of the ability to pay and responsibility of the various merchants of the country. The facts presented by Mr. Mueller showed the master plumber in a sorry light. It was shown that as a class he was woefully lacking in even fair financial status, and regretfully it must be said, quoth Mr. Murphy, that he was shy sadly in commercial rating.

Continuous study of overhead costs, and a more proper system for conducting the plumbing business, can only correct this untoward condition in which the craft generally is steeped. We should discuss these ideas of overhead cost by blackboard illumination. And we should continue so to do, so that the merest tyro in the business will know just how to figure.

The selfish position of the man on the outside was also shown. Without cost of time or money he is enjoying the benefits which surround the entire profession through the accomplishments and activities of the organization members. He should be made to see that he is demanding representation without being taxed, and that the position he occupies is an un-American one, to say the least.

Mr. Murphy spoke of the pleasure which he enjoyed by being present at this banquet and the convention to follow. He spoke of the personal advantages derived from his membership in the association, so much more productive of material good and friendship, at less cost, than any of the numberous others of which he is a member, and brought a really excellent trade address to a close by inviting all present to attend the Philadelphia national convention in June next.

David Craig, former national president, an organization man for years, and one whose contribution not only to the master plumbers' cause, but that of science as well, will live forever. Each and every member of the association has heard of his famous sanitary committee's report, upon which he was at work for two years, enjoying the collaboration of professors of distinction, who acknowledged that the treatise upon sewer gas and bacteria presented by Mr. Craig was the only work of its kind in the libraries of the world.

In contradiction of the accepted idea that the average man does not know how to figure overhead cost, etc., Mr. Craig affirmed that the average man does know what he is doing. "Youth will be served," said he. "If the young man takes a job at cost, even below, or at a ridiculous profit, he will have to take it out of his bones. To get recognition, the young man has to have the price or exceptional skill in his work. With experience and varied operations he will be able to insist upon a profit commensurate with the work performed. You cannot have a finished product in the young man, nor must we expect it. We must get outside men in and educate them. The result is easy to perceive. With education will come success. And our success will enjoy the appreciation of the dealers, who are anxious that we should prosper and be able to promptly discharge our obligations. We do not have to prove the reasonable value of our labor or our goods, and we should command and insist upon receiving a good price."

C. H. Cronin, former national director, and a member at various times of national committees of importance, stated that we warmly welcomed educated competition. "Master plumbers like to see their confreres—competitors, if you please—successful. We should dignify our calling as much as possible. We are called upon usually to install plumbing for men of financial means, for only those are qualified to enjoy the luxuries of our craft. We must get a good profit so as to be able to improve our commercial position before the country. Merchants in all other pursuits receive profits without question. We all know that 50 and 60 per cent. are added to the cost price of articles purchased each day in the majority of stores. We hesitate at times to add 10 or 15 per cent. Why this practice should be continued is beyond me. Our profits should be upon an equality with those of the merchants in the hardware, dry goods and other fields of endeavor."

Respecting the reciprocal relations with journeymen, Mr. Cronin stated that this arrangement was under way, and the success of the newer conditions was sincerely hoped for. Mr. Cronin stated that he looked with considerable optimism upon the business, which, said he, should in all cases develop a gratifying profit. The curse of uneducated and suicidal competition was touched upon by this trade tactician, and his words of wisdom were splendidly received.

Edward C. Kelly, State examiner of master plumbers, and a master plumber for years of consequence and importance in Boston, Mass., was next introduced. With Messrs. Craig and Cronin, Mr. Kelly for a long time has been engaged upon the legislative committee, and his achievements have been for the great good of the association. Mr. Kelly stated that we were better off to-day than ever before. He is for looking up. The presence of the gentlemen at the banquet was evidence of a general and gratifying prosperity. Education will bring along in its wake the long hoped for results. Already he could perceive much good that has been accomplished during the past decade. For character and integrity as a class the master plumbers, said he, measured up to any other class of professionals or craftsmen.

Andrew H. Curtin, former national director, former State president, and one who has borne the honors of organization office for many years, was next introduced. He was extremenly happy at the large gathering. "In this State," said he, "we never saw the like of it before." He mentioned the coming national convention in Philadelphia. When we visited that city on our way to the Atlantic City convention several years ago, while the Philadelphians did not expect us, they immediately got together and furnished us a rare entertainment. He mentioned the names of former National President W. H. Doyle: and National Treasurer William McCoach, and assured all who attended the best of times, educational especially. Mr. Curtin referred gladly to the visitors from the other States of New England, and mentioned his roommate, Eugene Goss, on the return trip from Galveston. He urged us to take the young man into our business and educate him thoroughly, so that he would not have to take it out of his bones. Our organization will always take us somewhere, the desired place and state. He closed by stating that the officers of the State association should be mighty proud of the excellent condition in which the organization now is.

J. W. Kennely, State president, and an active participant in State and national affairs for many years, although at the present time Police Commissioner of Springfield, Mass., was next presented to the diners. The speaker stated that when the invitation to be present this evening arrived he looked up his diary and found that the date conflicted with a meeting of importance in Springfield, which he immediately had postponed so that he would be free to join his fellow craftsmen from throughout the State. He urged us as well to gather the young men into the fold. The organization has done and is doing untold good for the business, and it was his sincere wish that it might continue to spread its beneficent work for all time.

National President Frank J. Fee was the recipient of a great reception upon his introduction by the toastmaster. The national president stated that he would be lax in his duty, and by no means a real president, if he had failed to be present at this brilliant affair. He had looked up the early history of the national association and found therein the names of truly great men who had been furnished to the "national" by the city of Boston. National presidents, national secretaries, national committeemen, in short, the best character of men that aided the national organization in its earlier struggles and since were drawn from the environs of Boston. At the inception of the national association way back in 1883 there were seven representative master plumbers from this city then present. As the national president mentioned the names of Riley, Mitchell, Finnerty, Tute, Smith, Dacey, Devlin, Craig, Cronin, Shannon, Kelly and others of note whose services had been valuably and unselfishly rendered to the cause, cheers were lustily given by the delighted members from the Bay State, who were mightily pleased at the recognition meted out to their trade progenitors. Mr. Fee further congratulated the association upon the wonderful advance in membership. In 1905 the red book showed 254, while in March, 1913, there were inscribed upon its pages 411 Massachusetts master plumbers.

Mr. Fee stated that it was a physical impossibility to attend all the functions to

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he had been cordially invited by the s associations. Whenever he could l accepted these, but the real merit orth of the Massachusetts associa- vithout disparagement to the other nent parts of the national body, tated his presence, as well as that tional Secretary Murphy. The na- president paid a direct compliment : efficiency and willing spirit of al Director R. J. Welch, and stated ich State in the New England sec- as privileged to call upon National or Welch, who could stay along hem for a week, if necessary. Mr. ated that each State has his full and ified sanction so far as Mr. Welch's ce with it was concerned.

ident Cassedy and Mr. Welch were tribute by Mr. Fee at the promised ew names to be presented at the elphia convention. This was great and surely would set a pace for States to follow. In the mention itional membership his remarks led the yeoman services now being ren- to the cause by National Director I. own, who, said Mr. Fee, is going h the south spreading the light in e of great difficulties. Some master ers down in Dixie had the effrontery , "How much are you getting out of Despite these and other unsympa- circumstances, Mr. Brown will re- ith a record that will speak well for egiance and loyalty to the national zation. He spoke of Mr. Brown's characteristics, his great love of , from whom each day he receives essages by telegraph. In the face love of his wife and child, he cheer- uckled on the armor and is success- neeting those outside the breastworks h the southern cities.

onal Director Carl J. Stein, Chicago, as mentioned as a member who had nuch for the association in his prose- in the State of Indiana and neigh- Commonwealths. Mr. Stein has olished great things, and his services net with hearty applause at the hands fellow directors.

Fee paid a tribute to the intelli- of his audience. In short, the mas- mbers throughout the country were al with this audience in sobriety and

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decorum. "This banquet is an evidence of the cleanliness of our living. You will notice, gentlemen, that all liquor has been dispensed with. Even were it here, I am positive that our members would conduct themselves as gentlemen, as they always have done. Still, it will not be a matter of surprise for me to see that we are cartooned in a trade paper as quaffing ambrosia and swimming in a sea of suds."

The "general contractor" evil received the attention of Mr. Fee, who was the instrument through which the passage of the present New York law separating plumbing from the general contract was secured, at great cost of time and expense to himself. In the Empire State alone, stated the national president, there has occurred a saving to the citizens of $1,125,000. This marvelous achievement since September of last year, when the bill became effective, has led 25 per cent. of the other State associations to attempt the passage of similar measures. Our record permits us to go before any civic body or class of citizens, and get instant recognition. Mr. Fee stated that it would be his pleasure, and that of the national secretary, to be present at the convention on the following day. He congratulated the State and local associations on the quality of the attendance, and sincerely hoped that he would have many opportunities in the future of being present with his Massachusetts brethren on similar occasions. Great applause punctuated the many telling points in Mr. Fee's vital and sincere address, but pandemonium reigned supreme at its termination.

President James S. Cassedy read letters of regret and felicitation from the following gentlemen: R. T. Rock, Bridgeport; C. T. Byrne, Chicago; Frank B. Lasette, New York; Thomas E. Manning, Rhode Island; S. Louis Barnes, Philadelphia, and John Trainor, Baltimore.

Local President P. J. Sullivan rose to express his appreciation to Eugene Goss, Lewiston, Me., and his colleagues for the valiant and sympathetic services rendered. He also addressed Mr. Fogerty, and likewise stated his thanks on behalf of his association for the co-operation of the Rhode Island constituents.

At this juncture National President Fee addressed the diners, and stated that upon their return home they would each receive a letter from the national office, the burden of which would be help, and immediately, for our suffering brethren in the city of Dayton, O., who suffered greatly in the recent terrible calamity. Other cities through the middle west and western sections had been addressed regarding this matter of succor and help, but had replied that they could take care of themselves, expressing their appreciation of the kindly offer of the national office. But in Dayton, said Mr. Fee, each and every member of the association has suffered the loss of everything he possessed. They have not even the tools to work with. Prompt responses to this appeal for help will be greatly appreciated. Checks should be drawn to the order of National Secretary Charles Murphy.

Mr. Sullivan stated that his honor, the Mayor, had been detained at the Roxbury meetings, but that he would positively attend. He craved the indulgence of the members for a few minutes.

National President Fee and National Secretary Murphy were tendered a reception, and personally were introduced to each member in the room.

Joseph Maynard then arrived and stated that the Mayor, he thought, was on his way and would be here presently. The Hon. Mr. Fitzgerald, who had been hard put during the entire evening, making 12 separate speeches in four hours in various sections of the city, reached the banquet at 11:45 P. M., and stayed with us until he was called away by his secretary to jump in and direct his army, who were confronted by the threatened telephone strike. Incidentally, his honor stated that he had averaged but a few hours' sleep for the past several days, which merely furnishes some idea to the proletariat of the overtime which the conscientious, earnest and popular Mayor of bigger, better and broader Boston puts in in the interest of all its citizens.

President Cassedy stated that the convention would be called at the Hayward Assembly Rooms, Hayward Pl., at 10 A. M. upon the morrow, and urged all to be prompt in attendance, as matters of importance, as well as addresses in executive session, would be presented by the national officials then in attendance.

Cambridge Springs, Pa., Meeting of Northwestern Association.

A SPLENDID attendance was noticed at the recent annual meeting of the Northwestern Association of Master Plumbers, held at the Hotel Bartlett, Cambridge Springs, Pa., April 10 and 11.

The delegates and guests present follow:

L. D. West, Chicago, Ill.; Geo. W. Smith, Pittsburgh, Pa.; H J Harte, Pittsburgh, Pa.; F. M. Luther, Cleveland, O.; Adam Welker, Cleveland, O.; J. W. Barber, Sewickley, Pa.; H. P Cahill, Akron, O.; Chas. Wilson, W. J. Scholl, J. Brenner and C. J. Little, Youngstown, O.; W. F. McRoberts, Youngstown, O.; W. F. McRoberts, Akron, O.; B. J. O'Donnell, Syracuse, N. Y.; M. C. Judd, Meadville, Pa.; J. E. Moore, Warren, O.; L. R. Stone, Greenville, Pa.; M. J. Murray, Miss Cecelia Murray, A. A. Stewart, John F. Smith, John Heald, Joseph Trainer, F. A. Morley, S. Tordoff, Samuel Tordoff, Miss Tordoff, John McGinty, M. Jardenson, Miss Jardenson, P. M. Stearn and Miss Gretchen Stearn, Jamestown, N. Y.; Frank D. McCue and Miss Connor, Oil City, Pa.; R. P. McKay, Erie, Pa.; Sam Coplan, Toledo, O.; Harry Coon, Pittsburgh, Pa.; R. M. Backus, Mansfield, O.; Mrs. F. J. Miller and Miss Miller, Erie, Pa.; G. L. Schellhammer, Warren, Pa.; L. J. Fleishman, Dunkirk, N. Y.; J. B. Cowl, Alliance, O.; W. B. Bryan, Pittsburgh, Pa.; G. C. Hoyt and J. R. Galloway, Cleveland, O.; M. B. Reynolds, Edinboro, Pa.; G. S. Davenport, P. B. Graham, L. L. Lord and C. P. Nichols, Meadville, Pa.; C. A. Stevens, Erie, Pa.; F. L. Camp, Greenville, Pa.; I. B. Schieble, G. A. Reeble, Youngstown, O.; W. F. Yates, Carnegie, Pa.

Charles W. Wilson, Youngstown, O., was elected president; vice-president, A. L. Schellhammer, Warren, Pa.; secretary (re-elected), M. C. Jull, Meadville, Pa.; treasurer (re-elected), L. L. Lord, Meadville, Pa.; sergeant-at-arms, Mac. H. Perry, Meadville, Pa.

The newly elected board of directors embrace the following names: M. J. Murray, Jamestown, N. Y.; H. P. Cahill, Akron, O.; W. J. Scholl, Youngstown, O.; Frank D. McCue, Oil City, and C. W. Boettiger, Erie, Pa.

Dancing and card games were engaged in. Banquet was served on the evening of the 10th at the Bartlett, and the social as well as the business sessions were said to be the most successful ever.

The proprietor of the hotel assisted greatly in adding to the success and joy of the occasion, and left nothing undone to assure the comfort and pleasure of his 125 guests.

Mahoning Valley (O.) Master Plumbers' Association.

At the annual meeting and election of officers of the Mahoning Valley Association, which was held April 7, the following gentlemen were elevated to office: President, Jacob Brenner; vice-president, William Rowland; Charles W. Wilson, secretary, and C. J. Little, treasurer.

The directors to serve during the ensuing year are Charles F. Kist, H. S. Smith and T. G. Beede.

Secretary Wilson, who was present at the Pittsburgh meeting of the Pennsylvania State Association, reports things in a flourishing condition. Association work is progressing favorably, and the coming year is destined to be one of the very best in the history of the Mahoning Valley Association. Incidentally, we wish to state that Mr. Wilson, besides being secretary, is president of the Northwestern Association of Master Plumbers.

New Plumbing Ordinance for Davenport, Ia.

THE new plumbing ordinance for Davenport, Ia., on which Plumbing Inspector John Joers has been working for some time, was considered by the City Council at the regular meeting April 14. The final change in the ordinance was made when an agreement was reached regarding "S" and half "S" traps, which are to be substituted in place of drum traps in kitchen sinks only. This point was debated by the various parties concerned for some time, the agreement being made as previously arranged.

Dates of Coming Conventions.

Oklahoma State Association of Master Plumbers, annual convention, Sulphur, Okla., May 12, 13 and 14.

Connecticut State Association of Master Plumbers, annual convention, Hartford, Conn., May 14.

American Society of Inspectors of Plumbing and Sanitary Engineers, annual meeting, Hotel Seelbach, Louisville, Ky., May 20 and 22.

Colorado State Association of Master Plumbers, annual convention, Antlers Hotel, Colorado Springs, Colo., June 5, 6 and 7.

New Jersey State Association of Master Plumbers, annual convention, Camden, N. J., June 16.

National Association of Master Plumbers, annual convention, Bellevue-Stratford Hotel, Philadelphia, Pa., June 17, 18 and 19.

Master Steam and Hot Water Fitters' Association, annual convention, June 23, 24, 25 and 26, Niagara Falls, N. Y.

Volcano Heating Torch

REPRESENTING
MORSE IRON WORKS
MALLEABLE and CAST IRON FITTINGS
ERIE, PA.

ALBERT BAERENKLAU

TELEPHONE: 458 Bushwick

54 Himrod Street, Brooklyn, N. Y.

Plumbing Inspector Joers began the work on the new ordinance when he explained to the commission that the present ordinance was far out of date. The important additions made by Inspector Joers are:

Filing of $50 cash bond to insure refilling of ditches with same material as was removed.

Water proof floors in all hotel and restaurant kitchens and public toilet rooms.

Catch basins for garage drains.

Grease traps for hotel and restaurant sinks.

Eliminating vaults and cesspools in sewer districts.

Limiting the number of fixtures to be wasted and vented into a given size of pipe.

Separate toilet for each family in tenement houses.

Substituting the "S" and half "S" traps for drum traps (in kitchen sinks only).

Kentucky Plumbers Elect Officers.

THE annual convention of the Kentucky Master Plumbers' Association was held Monday and Tuesday, April 14 and 15, at Covington, Ky.

The election of officers resulted as follows:

President, George W. Schardein, Louisville.

Vice-president, W. H. Dahlenburg, Covington.

Secretary and treasurer, W. W. White, Newport.

The new executive committee is composed of the following: J. J. Fitzgerald, Lexington; J. Isaacs, Louisville; Charles Whitehead, Frankfort; George W. Keefer, Bellevue.

All the plumbers in Alton, Ill., have signed an agreement to close their places Saturday afternoons. The order goes into effect immediately and the man who wants to employ a plumber pay day afternoon will have to plug up the leak and be content with having the damage repaired Monday.

Nebraska Note.

A BILL has been introduced in the Nebraska Legislature for the State Board of Health to have jurisdiction over plumbing in State buildings and for an examining board of plumbers in cities of 3,000 inhabitants or more.

E. FLORSHEIM, Pres. L. A. LONDON, Treas. E. A. LONDON, Sec'y

SUPPLIES FOR PLUMBERS, STEAM AND GAS FITTERS, TINSMITHS, SHEET IRON WORKERS, ENGINEERS, FACTORIES, ETC.

United Plumbers Supply Co.

HIGH GRADE
PLUMBERS SUPPLIES

181 East 108th Street, New York

Warehouse, 184 E. 109th Street Phone, Harlem { 4290 4289

PLUMBING PLANS REPAIRS
F. R. LAWLER,
DRAFTSMAN
473 WEST BROADWAY,
PHONE, 811 SPRING. N.Y. CITY.
NEW AND ALTERATION WORK, HEATING SYSTEMS, DEVICES ILLUSTRATED. IN FACT, DRAWINGS OF ANYTHING.
RAPID, RELIABLE, REASONABLE.

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JOBBERS IN
Plumbers', Steam and Gasfitters' Supplies

Good Goods—Low Prices—Prompt Deliveries

231 and 233 East 33d Street, NEW YORK

TELEPHONES { 108 109 } MADISON SQUARE

SAM. S. GLAUBER, Inc.

Good Plumbing Material

Seventy-ninth Street—Second Avenue, New York

TELEPHONES { 1865 1864 358 } LENOX

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GLAUBERSPECIALTIES

Greater New York News.

H. M. NOBLE, of Brooklyn, N. Y., has removed from 484 Tompkins Ave. to 1412 Fulton St., where he has established himself in more commodious quarters to keep pace with his rapidly increasing business. Mr. Noble is one of the old-time Brooklyn plumbers, having served as apprentice and journeyman with Lewis E. Paterson from 1871 to 1879, and has been in business for himself 41 years. Aside from his jobbing and overhauling work he has the following contracts on hand: Nine 2-story family houses on Beverly Road, two 1-family houses on E. 31st St. and two large residences on E. 45th St. and Linden Ave.

Malcolm C. Beard, of 281 Jefferson Ave., Brooklyn, is one of the progressive plumbers of that borough. He has just purchased a new auto to facilitate his movements in going to and from his numerous jobs.

The National Plumbing Supply Co., Manhattan, has removed from 3928 to 3921 Third Ave. It occupies a large corner store and carries a full line of specialties.

D. Rogrove, formerly of 2059 Washington Ave., Manhattan, has moved to 4387 Third Ave. Mr. Rogrove says that he has been greatly benefited by the change in a business way.

Bonica & Murphy, of 108 Broad St., Manhattan, are busy with corporation work and have a number of fine contracts throughout the city.

American Society of Heating and Ventilating Engineers.

THE report of the committee appointed by the American Society of Heating and Ventilating Engineers last year to formulate standards for ventilation legislation for motion picture show places, and presented at the last annual meeting of the society in New York city, has just been approved by a mail ballot of the members. The report has been printed and is being distributed among the members. The society has a generous supply of this report in printed form on hand at its headquarters, 29 W. 39th St., New York city, and will be glad to furnish copies gratis to all engineers, boards of health, town councils, ventilation inspectors and others interested in the subject of proper ventilation of motion picture show places.

Brooklyn Open Meeting April 30, 1913.

THE Borough of Brooklyn Master Plumbers' Association each year set apart an evening when those legitimately engaged in the plumbing business, whether affiliated with the association or not, are entertained. This year the date is April 30, 1913, at 8 P. M. All those licensed master plumbers who are not members of the association are cordially invited to attend and be present on the evening mentioned at the Jefferson Building Hall, 4 and 5 Court St., Brooklyn, N. Y., at 8 P. M. A vaudeville entertainment and collation will be given by the association. Business talks will be given by officers of the association, and a real good evening is promised all those who attend. Smoking will be permitted, and as the good fellowship of the Brooklyn master plumbers is second to none, the best of good times will be enjoyed.

Attractive New Catalogue.

THE Haydenville Co., of Haydenville, Mass., and 150 Nassau St., New York, recently issued its new catalogue, the front cover of which is reproduced herewith.

It illustrates and describes the company's line of high-grade plumbing brass goods,

including complete lines of Compression, Fuller, Self-Closing and Quick Compression work. There is also a very complete listing of ground key work.

The catalogue is 7x9 inches, printed in two colors on heavy coated paper. Our readers should obtain a copy of this catalogue by writing the above concern. Mention the MERCHANT PLUMBER AND FITTER.

A Lease of Life

"Say, feller, I ain't a beggar, but I'm up against it. Could you slip me a jitney, or even two-bits--I——"

"You are really hard up?" we interrupted.

"Hard up?" he echoed, bitterly. "Say, boss, if I had to pay a cent a barrel for air, I'd be suffocated before I'd breathed me first half-pint!"

We were weak, but we fixed it so he would have oxygen for another two hours.

PITTSBURGH NOTES.

THE Pittsburgh Master Plumbers' Association has been served with notice to vacate the building in which its meeting rooms are located. The structure is being dismantled to make way for the new store, which is to be erected by the Baer-Kaufmann Co. No definite arrangements have been made for new quarters for the association.

The A. M. Byers Co., Pittsburgh, has established a distributing branch in Chicago. A full line of wrought iron pipe will be carried. It will be in charge of Kenneth Anderson, with E. A. Moore as office manager. W. J. Mulhrein will be the sales representative.

The 12th annual convention of the West Virginia Master Plumbers' Association scheduled for March 18 has been postponed till May.

The National Tube Co., Pittsburgh, has the contract to furnish 200 miles of gas pipe for the Western Canada Natural Gas Co. to be used in distributing natural gas to 25 different towns near Calgary.

The Pressed Metal Radiator Co., Pittsburgh, at a recent meeting elected the following directors: A. W. Mellon, F. C. Perkins, R. B. Mellon, John W. Garland, H. A. Phillips, John K. Frye and H. C. Shaw.

The George H. Soffel Co. has closed a large plumbing contract in the new high school in Buffalo, N. Y.

The Iron City Plumbing Co. has the plumbing contract for the alterations to the plumbing system of the Hotel Lincoln, Pittsburgh.

Moss & Blakely have the contract for the plumbing in the new Mireland Theater, Pittsburgh; the new municipal pumping station at Aspinwall, and the alterations to the West Liberty public school.

The S. M. Dick Plumbing & Heating Co. has the contract for the sanitary and heating systems in six new modern dwellings which are being erected by Mrs. John Logan in Phillips Ave., Pittsburgh.

They Couldn't Put One Over on the Steamfitters.

ALL the plumbers employed by the T. J. Mooney Co. on Eighth Ave., N., Nashville, Tenn., are out on strike because the steamfitters refused to subscribe to a fund which was to be used to secure the passage of a bill through the Legislature, which bill, it is claimed, would have been beneficial to the plumbers.

Mr. Mooney, when asked about the matter, stated that the steamfitters didn't think the bill would benefit them any and refused to pay the assessment. The plumbers wanted Mr. Mooney to force the steamfitters to pay the assessment or fire the steamfitters. He refused to do this and the plumbers walked out.

MERCHANT PLUMBER AND FITTER

DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING, AND VACUUMCLEANING

Published Semi-Monthly at 200 Fifth Ave., New York, N. Y.

NEW YORK, MAY 10, 1913.

By the Merchant Plumber and Fitter Publishing Co.

Pine Street, in the Older Residential Section of the City of Philadelphia, Facing the Beautiful Grounds of the Old Pennsylvania Hospital, Founded in 1756. This Section Is One Mile Southeast of City Hall.

Independence Bell.

THERE was tumult in the city,
In the quaint old Quaker town,
And the streets were rife with people
Pacing restless up and down;
People gathering at corners,
Where they whispered each to each,
And the sweat stood on their temples
With the earnestness of speech.

"Will they do it?" "Dare they do it?"
"Who is speaking?" "What's the news?"
"What of Adams?" "What of Sherman?"
"Oh, God grant they won't refuse!"
"Make some way there!" "Let me nearer!"
"I am stifling! "Stifle then!
When a nation's life's at hazard,
We've no time to think of men!"

So they beat against the portal,
Man and woman, maid and child;
And the July sun in heaven
On the scene looked down and smiled.
The same sun that saw the Spartan
Shed his partiot blood in vain,
Now beheld the soul of freedom,
All unconquered, rise again.

See! See! The dense crowd quivers
Through all its lengthy line,
As the boy beside the portal
Looks forth to give the sign.
With his little hands uplifted,
Breezes dallying with his hair,
Hark! with deep, clear intonation,
Breaks his young voice on the air.

Hushed the people's swelling murmur,
List the boy's exultant cry!
"Ring!" he shouts; "ring, grandpa!
Ring oh, ring for Liberty!"
Quickly at the given signal
The old bellman lifts his hand,
Forth he sends the good news, making
Iron music through the land.

How they shouted! What rejoicing!
How the old bell shook the air,
Till the clang of freedom ruffled
The calmly gliding Delaware;
How the bonfires and the torches
Lighted up the night's repose,
And from the flames, like fabled Phoenix,
Our glorious Liberty arose!

That old State House bell is silent,
Hushed is now its clamorous tongue,
But the spirit it awakened
Still is living—ever young;
And when we greet the smiling sunlight
On the Fourth of each July,
We will ne'er forget the bellman
Who, betwixt the earth and sky,
Rang out loudly, "Independence!"
Which, please God, shall never die.

The Convention City Two Hundred Years Ago.

ANENT the coming convention of the National Association of Master Plumbers, which will be held in Philadelphia in June, we publish a historical description of the "Province of Pensilvania," which includes an account of the city of Philadelphia extracted from a history written in the year 1697 and dedicated "to the most noble and excellent Governour Friend William Penn," by Gabriel Thomas, who came from England in 1681 in the ship *John and Sarah* of London, commanded by Henry Smith, and who resided in Pennsylvania about 15 years:

Pensilvania lies between the latitude of forty and forty-five degrees, West Jersey on the east, Virginia on the west, Maryland south, and New York and Canada on the north. In length three hundred, and in breadth one hundred and eighty miles.

It remained with very little improvement till the year 1681, in which William Penn, Esquire, had the countrey given him by king Charles the second, (in lieu of money that was due to his father, Sir William Penn) and from him bore the name of Pensilvania.

Since that time, the industrious inhabitants have built a noble and beautiful city, and called it Philadelphia, or Brotherly-love (for so much the Greek word Philadelphia imports,) which contains a number of houses all inhabited; and most of them stately, and of brick, generally three stories high, after the mode in London, and as many several families in each. There are very many lanes and alleys, as first, Huttons-lane, Morris-lane, Jones's-lane, wherein, are very good buildings; Shorters-alley, Yowers-lane, Wallers-alley, Turners-lane, Sikes-alley, and Flowers-alley. All these alleys and lanes extend from the Front-street to the Second-street. There is another alley in the Second-street, called Carters-alley. There are also, besides these alleys and lanes, several fine squares and courts within this magnificent city; as for the particular names of the several streets contained therein, the principal are as follows, viz: Walnut-street, Vine-street, Mulberry-street, Chestnut-street, Sassafras-street, taking their names from the abundance of those trees that formerly grew there; High-street, Broad-street, Delaware-street, Front-street, with several of less note, too tedious to insert here.

It hath in it three fairs every year, and two markets every week. They kill above twenty fat bullocks every week, in the hottest time in Summer, besides many sheep, calves, and hogs.

This city is situated between Schoolkill-river and the great river Delaware, which derives its name from Captain Delaware, who came there pretty early, ships of two or three hundred tuns may come up to this city, by either of these two rivers. Moreover, in this province are four great market-towns, viz. Chester, the German-town, New-castle, and Lewis-town, which are mightily enlarged in this latter improvement. Between these towns, the watermen constantly ply their wherries; likewise all those towns have fair kept in them; besides there are several countrey villages, viz. Dublin, Harford, Merioneth, and Radnor in Cumbry; all of which towns, villages and rivers took their names from the several countries from whence the present inhabitants came.

There is curious building-stone and paving-stone; also tile-stone, with which latter, governour Penn covered his great and stately pile, which he called Pennsbury-house; there is likewise iron-stone or oar, (lately found) which far exceeds that in England, being richer and less drossy; some preparations have been made to carry on an iron-work: there is also very good lime-stone in great plenty, and cheap, of great use in buildings, and also in manuring land, (if there were occasion) but nature has made that of itself sufficiently fruitful; besides here are load-stones, ising-glass, and (that wonder of stones) the Salamander-stone found near Brandy-wine-river, having cotton in veins within it, which will not consume in the fire, though held there a long time.

And now for their lots and lands in city and countrey, since they were first laid out, which was within the compass of about twelve years: that which might have been bought for fifteen or eighteen shillings, is now sold for fourscore pounds in ready silver; and some other lots, that might have been then purchased for three pounds, within the space of two years, were sold for a hundred pounds a piece, and likewise some land that lies near the city, that sixteen years ago might have been purchased for six or eight pounds the hundred acres, cannot now be bought under one hundred and fifty, or two hundred pounds.

Now the true reason why this fruitful countrey and flourishing city advance so considerably in the purchase of lands is their great and extended traffique and commerce, both by sea and land, viz. to New-York, New-England, Virginia, Mary-land, Carolina, Jamaica, Barbadoes, Nevis, Monserat, Antego, St. Christophers, Barmudoes, New-foundland, Maderas, Saltetudeous, and Old England; besides several other places. Their merchandize chiefly consists in horses, pipe-staves, pork and beef, salted and barrelled up, bread and flour, all sorts of grain, peas, beans, skins, furs, tobacco, and pot-ashes, wax, &c. which are bartered for rumm, sugar, molasses, silver, negroes, salt, wine, linen, houshold-goods, &c.

Great encouragements are given to tradesmen and others. I shall instance a few—carpenters, both house and ship, brick-layers, and masons will get between five and six shillings per day constantly. As to journeymen shoe-makers, they have two shillings per pair both for men and women's shoes: and journeymen taylors have twelve shillings per week and their diet. And weavers, have ten or twelve pence the yard for weaving: wool-combers, have for combing twelve pence per pound. Potters have sixteen pence for an earthen pot which may be bought in England for four pence. Tanners, may buy their green hides for three half pence per pound, and sell their leather for twelve pence per pound. And curriers have three shillings and four pence per hide for dressing, they buy their oyl at twenty pence per gallon.

FIFTY-Four years of consistent effort to produce the best Sanitary Ware ought to show in the product.

How well the fifty-four years, during which we have been making White Vitreous China Sanitary Ware, have been turned to account is not for us to say, but—our products are featured by the leading supply houses throughout the land, and we operate the largest individual plant in the country.

"The Anchor There means Quality Ware"

Thomas Maddock's Sons Co.

Oldest Sanitary Potters in America

Trenton, N.J. U.S.A.

Brick-makers have twenty shillings per thousand for their bricks at the kiln. Felt-makers will have for their hats seven shillings a piece, such as may be bought in England for two shillings a piece; yet they buy their wool commonly for twelve or fifteen pence per pound. And as to the glaziers they will have five pence a quarry for their glass. The butchers, for killing a beast, have five shilling and their diet; and they may buy a good fat large cow for three pounds, or thereabouts. The brewers sell such beer as is equal in strength to that in London, half ale and half stout, for fifteen shillings per barrel; and their beer hath a better name, *that is,* is in more esteem than English beer in Barbadoes, and is sold for a higher price there. And for silver-smiths, they have between half a crown and three shillings an ounce for working their silver, and for gold equivalent. Plasterers have commonly eighteen pence per yard for plastering. Last-makers have sixteen shillings per dozen for their lasts. And heel-makers have two shillings a dozen for their heels. Wheel and millwrights, joyners, braziers, pewterers, dyers, fullers, comb-makers, wyer-drawers, cage-makers, card-makers, painters, cutlers, rope-makers, carvers, block-makers, turners, coopers, bakers, *button*-makers, hair and wood sieve-makers, boddice-makers, black-smiths, gun-smiths, lock-smiths, nailers, file-cutters, skinners, furriers, glovers, *patten*-makers, watch-makers, clock-makers, sadlers, collar-makers, barbers, printers, book-binders and all other trades-men, their gains and wages are about the same proportion as the fore-mentioned trades.

Of lawyers and physicians I shall say nothing, because this countrey is very peaceable and healthy; labouring-men have commonly here, between fourteen and fifteen pounds a year, and their meat, drink, washing and lodging; and by the day their wages is generally between eighteen pence and half a crown, and diet also; but in harvest they have usually between three and four shillings each day, and diet. The maid servants' wages are commonly betwixt six and ten pounds per annum, with very good accommodation.

Corn and flesh, and what else serves man for drink, food and rayment, is much cheaper here than in England, or elsewhere; but the chief reason why wages of servants of all sorts is much higher here than there, arises from the great fertility and produce of the place; besides, if these large stipends were refused them, they would quickly set up for themselves, for they can have provision very cheap, and land for a very small matter. They have constantly good price for their corn, by reason of the great and quick vent into Barbados and other islands; through which means silver is become more plentiful here than in England, considering the number of people. They pay no tithes and their taxes are inconsiderable; the place is free for all persuasions, in a sober and civil way; for the Church of England and the Quakers bear equal share in the government. They live friendly and well together; there is no persecution for religion, nor ever like to be. I shall add another reason why women's wages are so exorbitant; they are not yet very numerous, which makes them stand upon high terms for their several services; moreover, they are usually married before they are twenty years of age, and, when once in that noose, are for the most part a little uneasie, and make their husbands so too, till they procure them a maid servant to bear the burden of the work, as also in some measure to wait on them too.

The city of Brotherly-love far exceeds her name-sake of Lydia, and will, in all probability, make a fine figure in the world, and be a most celebrated emporeum. Here is lately built a noble town-house or guild-hall, also a handsome market-house and a convenient prison.

The laws of this countrey, are the same with those in England; our constitution being on the same foot; many disputes and differences are determined and composed by arbitration; and all causes are decided with great care and expedition, being concluded at furthest at the second court, unless they happen to be very nice and difficult cases. Under forty shillings any one justice of the peace has power to try the cause.

Thieves, of all sorts, are obliged to restore four-fold after they have been whipt and imprisoned according to the nature of their crime; and if they be not of ability to restore four-fold, they must be in servitude till it is satisfied. They have curious wharfs, as also large and fine timber yards both at Philadelphia and New-castle, especially at the metropolis, before Robert Turner's great and famous house, where are built ships of considerable burthen; they cart their goods from that wharf into the city of Philadelphia, under an arch, over which part of the street is built, which is called Chestnut-street wharf, besides other wharfs, as High-street wharf, Mulberry-street wharf, and Vine-street wharf, and all those are common wharfs; and likewise there are very pleasant stairs, as Trus and Carpenter-stairs, besides several others. There are about thirty carts belonging to that city, four or five horses to each. There is likewise a very convenient wharf called Carpenter's wharf which hath a fine necessary crain belonging to it, with suitable granaries, and store-houses. And there are other wharfs which front the city all along the river, as also a curious and commodious dock with a drawbridge to it, for the convenient reception of vessels. In this famous city of Philadelphia there are several rope-makers who have large and curious rope-walks especially one Joseph Wilcox; also three or four spacious malt-houses, as many large brew-houses, and many handsome bake-houses for publick use.

In the said city are several good schools of learning for youth, in order to the attainment of arts and sciences, as also reading, writing, &c. Here is to be had, on any day in the week, tarts, pies, cakes, &c. We have also several cooks-shops, both roasting and boyling, as in the city of London; happy blessings, for which we owe the highest gratitude to our plentiful Pro-

LETITIA HOUSE; BUILT 1683. FIRST BRICK HOME IN PHILADELPHIA. AFTER A LAPSE OF 230 YEARS, THIS HOME OF THE FOUNDER, WILLIAM PENN, IS STILL ONE OF PHILADELPHIA'S HOMES.

vider, the great Creator of heaven and earth. The water-mills are made by one Peter Deal, a famous and ingenious workman, especially for inventing such like machines.

All sorts of very good paper are made in the German-town; as also very fine German linen, such as no person of quality need be ashamed to wear; and in several places, they make very good druggets, crapes, camblets, and serges, besides other woolen cloathes, the manufacture of all which daily improves; and in most parts of the countrey there are many curious and spacious buildings, which several of the gentry have erected for their countrey houses.

The Christian children born here are generally well favoured, and beautiful to behold; I never knew any with the least blemish.

There are very fine and delightful gar-

THE DONOVAN FLANGE

How Much Do You Lose

If You Pay Your Journeyman

60 cents an hour and it takes one hour to set a water closet of the old type against 15 minutes when the Donovan Flanged Closet is used? You know what your extras cost to connect the old style closet, so you will find it easy to figure that nothing is gained by their use.

Another Consideration:

How do you know when you've made tight your water closet? By the expensive Smoke or Peppermint test which takes a great deal of time and trouble. Yes, that is one way, but The Donovan Flange, giving an absolutely tell-tale water-sealed joint above the floor line is much simpler. It proves itself 365 days in the year while your other tests only prove for one.

Installing closets with the Donovan Flange effects two distinct savings:

1. They can be connected at a saving in time.
2. Can be tested at a saving of time and trouble.

The Donovan Flanged Closet can be connected direct to either Lead or Iron Soil Pipe. It makes the easiest possible connection and guards against sewer gas at the weakest point in the plumbing system. Its use will show a saving in cost. **Donovan Flanged Closets are manufactured exclusively by**

The Trenton Potteries Company, Trenton, N. J.

dens and orchards in most parts of this countrey; but Edward Chippey (who lives near the capital city) has an orchard and gardens adjoyning to his great house that equalizes any I have ever seen, having a very famous and pleasant summer-house erected in the middle of his garden, abounding with tulips, pinks, carnations, roses, (of several sorts) lilies, not to mention those that grow in the fields.

Reader, what I have here written, is not a fiction, flam, whim, or any sinister design, either to impose upon the ignorant, or credulous, or to curry favour with the rich and mighty; but in mere pity and pure compassion to the numbers of poor labouring men, women and children in England, that are wandering up and down looking for employment, who need not here lie idle a moment, much less vagabond or drone it about. Here are no beggars to be seen, nor indeed have any here the least temptation to take up that scandalous lazy life. Jealousie among men is here very rare, nor are old maids to be met with; for all commonly marry before they are twenty years of age.

The way of worship the Swedes use in this countrey, is the Lutheran; the English have four sorts of religious meetings here; the Church of England, who built a very fine church in this city in the year 1695; the Anabaptists; the Presbyterians; and two sorts of Quakers, (of all the most numerous by much) one party held with George Keith; but whether both parties will joyn together again in one I cannot tell. He gave strict charge concerning plain language and plain habit, and that they should not be concerned in the compelling part of the worldly government; that they should set their negroes at liberty after some reasonable time of service; and that they should not take advantage of the law against one another, as to procure them any corporal punishment. These instructions were given forth, in the year 1693, by the meeting held by George Keith, at P. James's house in Philadelphia. He shortly after went to England, where he now, in this year 1697, keeps a meeting, at Turners-hall, London, on Sundays in the afternoon.

What I have delivered concerning this province, is indisputably true; I was an eye witness to it all, for I went in the first ship that was bound from England for that countrey, since it received the name of Pensilvania. I saw the first cellar, when it was digging, for the use of our governour William Penn. And now, Reader, I shall take my leave of thee, recommending, with mine own self, to the directions of the spirit of God in our conscience.

South Carolina Forms New State Association.

THE South Carolina State Association of Master Plumbers was organized in Columbia on April 22 by I. J. Brown, of New York, a director in the National Association of Master Plumbers. Of the 104 master plumbers in South Carolina, 49 were present at the meeting. The State association has a membership of 70 at present.

The State Association of Master Plumbers elected the following officers: A. D. Palmer, president, Columbia; R. M. Masters, vice-president, Charleston; Julius E. Smith, treasurer, Charleston; R. R. Wood, secretary, Columbia. H. B. Chapman, of Columbia, and A. J. Ard, of Sumter, were selected as delegates to the meeting of the national association in Philadelphia in June.

The next annual meeting of the new association will be held in Charleston on the second Tuesday in April, 1914. Rock Hill made a strong bid for the meeting, but the delegates selected Charleston.

A feature of the meeting of the master plumbers in Columbia was the barbecue given them Tuesday afternoon at Ridgewood by the Southern States Supply Co., of which Edmund N. Joyner, Jr., is general manager. The barbecue was served in the pavilion at Ridgewood and was enjoyed by the master plumbers, as well as other guests. The plumbers were brought to Ridgewood after an automobile ride over Columbia.

Convening on April 22 at 10 A. M., the plumbers were in session until 4 P. M., except from 1 to 2 o'clock, when they were entertained at luncheon at the Waldorf cafe by the Columbia Association of Plumbers. Committees on legislation, sanitation and apprentices were appointed at the meeting. The session was held in the hall over the National State Bank of Columbia.

State associations of master plumbers have been organized in every State in the Union except Virginia. South Carolina is next to the last to come into the fold.

How the Delegates Will Be Entertained in Philadelphia.

Editor MERCHANT PLUMBER AND FITTER:

YOU ask me as chairman of the publicity committee, "What are you going to do for the 31st convention of the National Association of Master Plumbers of the United States, to be held June 17, 18 and 19?"

The well-known hospitality of Philadelphia master plumbers will see to it that the 31st convention will surpass all the preceding conventions. As the last one held in our city was a record breaker, so shall this be.

The delegates of the convention and their visiting ladies will be given every opportunity to see the historic city.

They will be entertained at the headquarters of the convention, the famous Bellevue-Stratford Hotel, the superior of which cannot be found in the United States.

The souvenirs provided for the ladies will be an article of household use, which, like the solid silver spoon of the first convention held in this city, will remain long in the families of the various delegates as a pleasant memento of their visit to our city.

The program thus far arranged is as follows:

Monday night — Informal reception at the Bellevue-Stratford.

Tuesday afternoon — Shopping tour, sight-seeing automobiles.

Wednesday afternoon—A luncheon at the Bellevue-Stratford roof garden.

Wednesday evening—Reception at the Bellevue-Stratford ballroom; dancing.

Thursday afternoon—Steamer excursion to upper Delaware River.

Friday afternoon—Automobile trip including Fairmount Park, along the beautiful Wissahickon, the Switzerland of America, with a luncheon at Willow Grove. Tickets free to the several amusements throughout the park. Return by special train to the Reading Terminal.

WM. H. DOYLE,
Chairman of the Publicity Committee.

State Secretary H. F. Baillet's Lecture to Jersey City Master Plumbers to Be Given May 15, 1913.

UNDER date of May 8, 1913, C. Werner, W. J. Cross and J. A. Sprouls, as a committee of arrangements, addressed a letter to all members calling attention to an illustrated lecture, with educational features, to be given by State Secretary H. F. Baillet, showing the practical business methods which should be employed by every master plumber.

Pohlmann's Hall, Ogden Ave. and Ferry St., Jersey City Heights, Thursday evening, May 15, 1913, is the place and date.

All men legitimately engaged in the business are invited to attend, and will be made welcome. Following the regular meeting of the Jersey City Association, the lecture will be presented at about 9.15 P. M. Refreshments, too, will be served, and it is all free.

Ordinance Opposed by Master Plumbers.

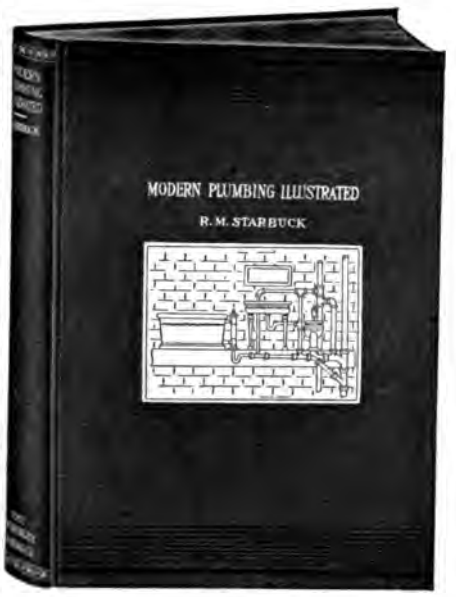
FORMAL protest against the provisions of the new plumbing ordinances was filed with the Salt Lake City commission at its meeting on April 17 by representatives of the Master Plumbers' Association. The master plumbers object to the power conferred upon the plumbing inspector, declaring that it gives him entirely too much to say concerning the plumbing business and the manner in which work should be done.

The protest says that not enough latitude is given the plumbers in the matter of selection of material and that changes made in the ordinance are entirely too restrictive.

The protest was ordered referred to the legal department of the city.

Pennsylvania Separate Contract Bill Passes House and Senate.

HOUSE Bill No. 1382, stipulating that the plumbing, heating, ventilating and electrical work must be separated from the general contract on all public buildings in the State of Pennsylvania, has passed both the House and Senate. This bill is patterned after the New York State separate contract bill as outlined in recent issues of the MERCHANT PLUMBER AND FITTER.



Modern Plumbing Illustrated

400 Large Quarto Pages. Fully Illustrated by Fifty-five full pages of detailed engravings, which have been made specially for this book.

The Only Thorough and Practical Work Issued on the Modern and Most Approved Methods of Plumbing Construction. Illustrating and Describing the Drainage and Ventilation of Dwellings, Apartments and Public Buildings, etc. The Standard Work for Plumbers, Architects, and for Boards of Health and Plumbing Examiners.

THE author of this book, Mr. R. M. Starbuck, is one of the leading authorities on plumbing in the United States. The book represents the highest standard of plumbing work. It has been adopted and used as a reference book by the United States Government, in its sanitary work in Cuba, Porto Rico and the Philippines, and by the principal Boards of Health of the United States and Canada.

It gives Connections, Sizes and Working Data for All Fixtures and Groups of Fixtures. It is helpful to the Master Plumber in Demonstrating to His Customers and in Figuring of Work. It gives the Mechanic and Student quick and easy Access to the Best Modern Plumbing Practice. Suggestions for Estimating Plumbing Construction are contained in its pages. This book represents, in a word, the latest and best up-to-date practice, and should be in the hands of every sanitary engineer and plumber who wishes to keep himself up to the minute on this important feature of construction.

CONTAINS FOLLOWING CHAPTERS, EACH ILLUSTRATED WITH A FULL-PAGE PLATE

1 Kitchen Sink, Laundry Tubs, Vegetable Wash Sink
2 Lavatories—Pantry Sinks, Contents of Marble Slabs
3 Bath Tub—Foot and Sitz Bath, Shower Bath
4 Water Closets—Venting of Water Closets
5 Low-Down Water Closets—Water Closets Operated by Flush Valves—Water Closet Range
6 Slop Sink—Urinals—The Bidet
7 Hotel or Restaurant Sink—Grease Trap
8 Refrigerators—Safe Wastes—Laundry Waste
9 Lines of Refrigerators, Bar Sinks—Soda Fountain Sinks
10 Horse Stall, Frost-Proof Water Closets
11 Connections for S Traps, Venting
12 Connections for Drum Traps
13 Soil Pipe Connections
14 Supporting of Soil Pipe
15 Main Trap and Fresh Air Inlet
16 Floor Drains and Cellar Drains—Subsoil Drainage
17 Water Closets and Floor Connections
18 Local Venting
19 Connections for Bath Rooms
20 Connections for Bath Rooms, Continued
21 Connections for Bath Rooms, Continued
22 Connections for Bath Rooms, Continued
23 Examples of Poor Practice
24 Roughing-Work Ready for Test
25 Testing of Plumbing System
26 Method of Continuous Venting
27 Continuous Venting for Two-Floor Work
28 Continuous Venting for Two Lines of Fixtures on Three or More Floors
29 Continuous Venting of Water Closets
30 Plumbing for Cottage House
31 Construction for Cellar Piping
32 Plumbing for Residence—Use of Special Fittings
33 Plumbing for Two-Flat House
34 Plumbing for Apartment Building
35 Plumbing for Double Apartment Building
36 Plumbing for Office Building
37 Plumbing for Public Toilet Rooms
38 Plumbing for Public Toilet Rooms, Continued
39 Plumbing for Bath Establishment
40 Plumbing for Engine House—Factory Plumbing
41 Automatic Flushing for Schools, Factories, etc.
42 Use of Flushing Valves
43 Urinals for Public Toilet Rooms
44 The Durham System—The Destruction of Pipes by Electrolysis
45 Construction of Work Without Use of Lead
46 Automatic Sewage Lift—Automatic Sump Tank
47 Country Plumbing
48 Construction of Cesspools
49 Septic Tank and Automatic Sewage Siphon
50 Country Plumbing
51 Water Supply for Country House
52 Thawing of Water Mains and Service by Electricity
53 Double Boilers
54 Hot Water Supply of Large Buildings
55 Automatic Control of Hot Water Tank
Suggestions for Estimating Plumbing Construction

Sent upon receipt of price, $4.00

Merchant Plumber and Fitter Pub. Co.

200 Fifth Avenue, New York

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Thirty-second Paper

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RULE 145. The platforms of treads of urinal stalls must never be connected independently to the plumbing system, nor can they be connected to any safe waste pipe.

Plate 148 shows a "wall urinal" correctly connected to the plumbing system. Look at the thread, platform or floor of urinal stall. As was mentioned, this space is often a receptacle for acid, uric acid. We show an independent connection and this is wrong. If it were correct and we had inserted a trap, what good would it be? No good. The "dripping" quantity of acid would never be enough to make a permanent water seal, and if it did what odorous essence would result, as the trap would never be properly flushed, except from a "sometime daily" mopping some urinals get. Nor can we connect a urinal

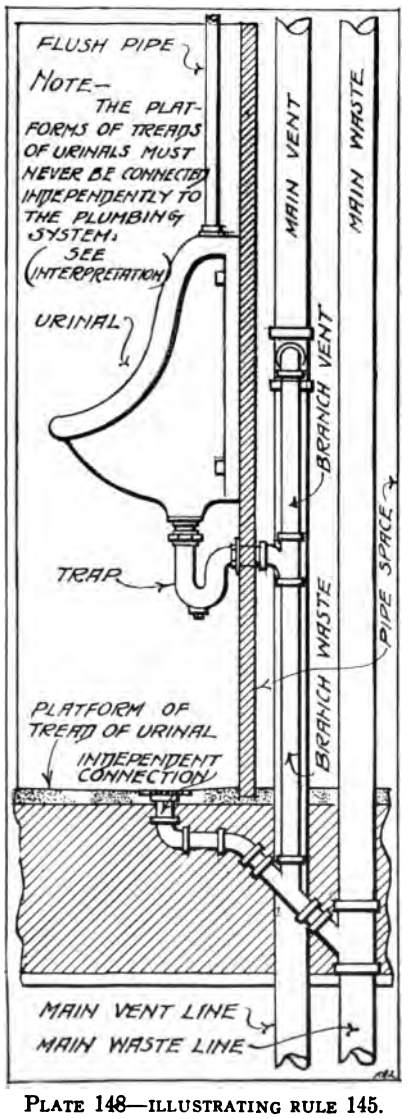


PLATE 148—ILLUSTRATING RULE 145.

platform with any safe waste. I should hope not. It is bad enough to have a safe waste, particularly a refrigerator safe waste, but if we were to affiliate it with a

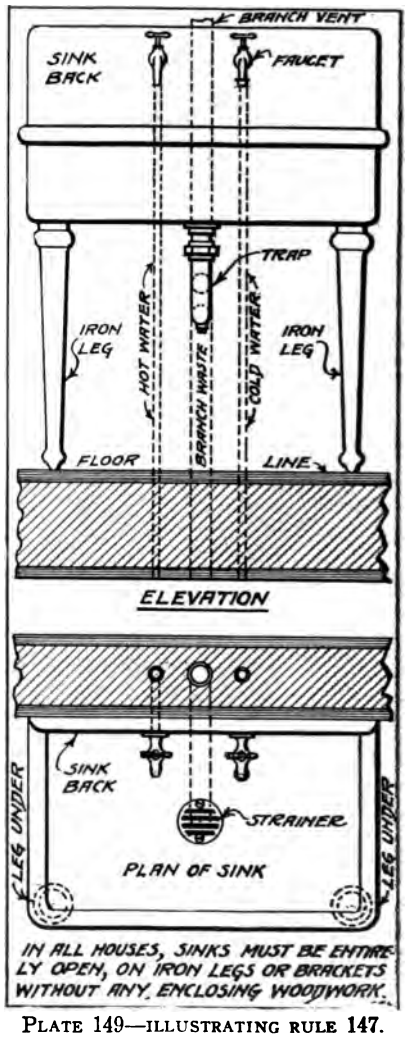


PLATE 149—ILLUSTRATING RULE 147.

urinal floor drain-well—the question is open.

Rule 146. Iron trough water-closets and trough urinals must be enameled or galvanized.

On plate 144 we showed trough water-closets, and as this rule refers to not only trough water-closets, but urinals also, we have illustrated two designs of trough urinals.

The upper sketch on plate 145 is a trough urinal with five compartments, but the trough is almost in one piece with outlet to trap in center. This trough is flushed from a perforated pipe 12 or 18 inches above urinal at back, the front, therefore, gets no cleaning. Look at the sketch below, a little better perhaps as far as these urinals go, as the back of urinal is not only flushed but the front also, as indicated by the dotted perforated pipe extending along inside of front of urinal near top. And all these trough water-closets, urinals and similar appliances must be galvanized or enameled.

Rule 147. In all houses sinks must be entirely open, on iron legs or brackets without any enclosing woodwork.

Plate 149 is a sketch of the plan and elevation of a kitchen sink, porcelain, supplied with hot and cold water. There is no wood surrounding this sink, and though the sectional partition against which the sink abuts looks like wood, it isn't; we are assuming that it is tile.

New York is a great and big city, and even in the remotest backwoods you couldn't find a kind of sink that prevails here, particularly and only—we hope—in tenements. There is a recess in the wall

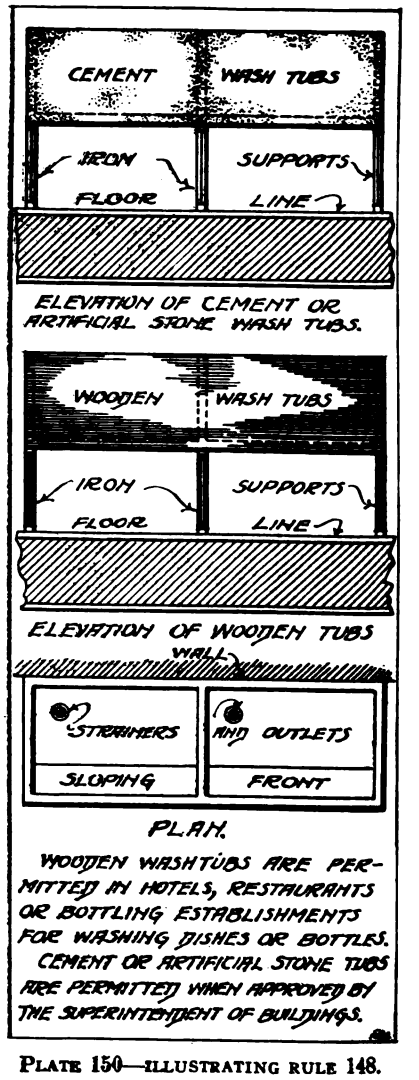

CEMENT WASH TUBS
IRON FLOOR
SUPPORTS LINE
ELEVATION OF CEMENT OR ARTIFICIAL STONE WASH TUBS.
WOODEN WASH TUBS
IRON FLOOR
SUPPORTS LINE
ELEVATION OF WOODEN TUBS
WALL
STRAINERS AND OUTLETS
SLOPING FRONT
PLAN.
WOODEN WASHTUBS ARE PERMITTED IN HOTELS, RESTAURANTS OR BOTTLING ESTABLISHMENTS FOR WASHING DISHES OR BOTTLES.
CEMENT OR ARTIFICIAL STONE TUBS ARE PERMITTED WHEN APPROVED BY THE SUPERINTENDENT OF BUILDINGS.

PLATE 150—ILLUSTRATING RULE 148.

APPROVED BY THE PHILADELPHIA BOARD OF HEALTH.

"IXL" Anti-Freezing Closets

Plate 4-IXL—With Pit.

Plate 58-IXL—D. S. Hopper Valve.

Plate 11-IXL—Seat Action Closet.

Plate 42-IXL—Automatic Tank.

CAN BE INSTALLED QUICKLY

Simply constructed; nothing inside of tank but the overflow pipe; no washers, only ½ in. on hopper valve. Lowest priced and most efficient on the market.

IN USE OVER 8 YEARS

Gives no trouble. No cups, rings or special washers used in their construction. Water Savers.

SOLD BY ALL JOBBERS

Our goods are built to stand hard usage; if that is the kind you are looking for we will be glad to hear from you.
Get the best, and do not be led astray by others "Just as good."

A FEW OF OUR SPECIALTIES

"IXL" Sewage Ejectors. Cellar Drainers. Water Lifts. Water Systems. Water Air Compressors. Belt or Electric Driven Air Compressors. Beer Pumps. Factory or Mill Closets. Seat Action Closets High and Low Down. Pull Combinations High and Low Down. Automatic Syphon Tanks 1¼ to 2½ Syphon. Urinal Sprays. Compound Air and Water Regulators. High Tank Anti-Freezing Combinations. Hopper Valves (Spring or Weight). Compound Lever Ball Cocks. Valve Rests. Air Chambers. Pitless Hopper Valves.
We guarantee them in every respect. Send for Catalogue.

"IXL" PUMP and MFG. CO.

Patentees and Makers

Plate 60-IXL—Without Pit.

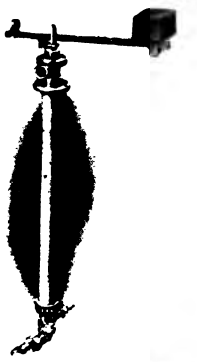


Plate 62-IXL—Pitless Valve.

Plate 53-IXL—Foot Action Closet.

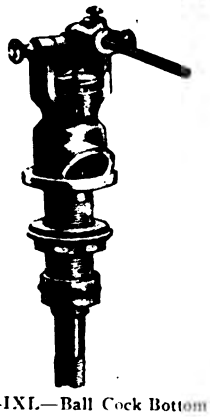


Plate 10-IXL—Ball Cock Bottom Supply.

957-59-61 N. Ninth Street and 958-60-62 N. Darien Street
PHILADELPHIA, PA.

COST ACCOUNTING FOR PLUMBERS' JOBBING AND Contract Cost Book

By WESLEY A. FINK

Expressly Written for the Merchant Plumber and Fitter.

IN the jobbing and contract cost books are recorded all the materials used and all the labor and expenses incurred in the performance of each job or contract; due credit should be given for all material delivered to a job but not used and returned to the shop or warehouse.

The old-fashioned jobbing and contract cost book was an ordinary day book or journal, with an alphabetical index in front. And the plan was to allow so many pages as were required for each job or contract and list these jobs, with their names and page numbers, in the alphabetical index, so that they could be readily located. The an order is entered in the job order book the name of the customer is entered at the top of one of these loose sheets, and the sheet is then placed in its proper place in the binder; if the customer's name is John Doe the sheet is placed after the letter D in the binder. If the jobs are small, several jobs for the same customer may be entered on the same sheet; but if necessary, for a large job or contract, additional sheets can be placed in the binder and marked Sheet No. 1, Sheet No. 2, etc. (see Fig. 11).

In some shops where only large work is undertaken a separate sheet is given to every job, but in the smaller shops the

Name.....JOHN DOE. Sheet No. 1.

Address.....44 North 4th Street.

Date.	Man's No.	Description.	Time.	Labor.		Material.		Sundries.	
1913.		Job No. 118.—Work at 730 Market St. Connecting up gas stove.							
April 15.	10	Plumber, Wm. Black	7 hours.	$4	90				
	20	Helper, George Green	7 hours.	1	75				
		40 ft. ¾" Pl. Iron Pipe				$3	20		
		1 1¼ x ¾" Mal. Tee					15		
		5 ¾" Mal. Ells					40		
		1 1¼ x 4 Nipple					15		
		6 ¾" Nipples					48		
		1 ¾" Stop Cock					75		
		Fares						$0	20
		Total Labor		$6	65	$5	13	$0	20
		Total Material						6	65
		Billed 4/15/13.						5	13
								$11	98
		Job No. 120.—Work at 815 Market St. Rewashering Spigots.							
		6 Comp. Washers				$0	30		
April 15.	10	Plumber, Wm. Black	1 hour.	$0	70				
	20	Helper, George Green	1 hour.		25				
		Total						$1	25
		Billed 4/15/13.							

FIG. 11.—JOBBING AND CONTRACT COST WORK.

objections to this method are that often the clerk would neglect to list the jobs in the index, with the result that the jobs were not billed; also, as the book became filled, it was a tedious matter to pick out the jobs that were ready to be billed, and often it was impossible to gauge accurately how many pages should be reserved for any large job or contract; consequently it was often necessary to carry the charges to a job from one section of the book to another, which was very unsatisfactory if it was desired to go over the charges for work on a large job or contract.

But the better and later plan is to use loose sheets, say, about 8½x11 inches, perforated and filed alphabetically in a sectional post binder with a snap lock. After same sheets can be used to enter up several jobs for the same customers until the sheet is filled. But in no case should the same sheet be used for more than one customer.

As these sheets are filled up they should be taken out of the "live" or current binder and filed away in a transfer binder or vertical file alphabetically; all the cost sheets for work done for the same party during the year should be filed together, making it an easy matter to go over the cost charges for any particular customer or for comparing former charges. Extreme care should be taken that no cost sheets are filed away in the transfer binder until all the charges on that sheet have been regularly billed.

MATERIAL SLIPS.

In order to keep a record of the material taken out of the shop by the workmen for the various jobs, there should be some method of checking up what is taken out, as the workmen often fail to charge on their job tickets all the material used on a job.

A requisition blank for material should be filled by the workman and turned into the office at the same time whenever any material is taken from the shop for any job, as in Fig. 12.

MATERIAL TAKEN OUT.

Date, April 15/13. Job. No. 118.
For....JOHN DOE,
At....730 Market Street.

58 ft. ¾" Pl. Iron Pipe.
1 1¼ x ¾" Mal. Tee.
6 ¾" Mal. Ells.
1 1¼ x 4" Nipple.
8 ¾" Nipples.
1 ¾" Stop Cock.

(Signed) WM. BLACK.

FIG. 12—REQUISITION BLANK.

If any material is returned unused from any job, a credit slip should be made out giving credit to the job for the material returned and the credit slip turned into the office at the time (see Fig. 13).

MATERIAL RETURNED.

Date, April 15/13. Job No. 118.
For....JOHN DOE,
At....730 Market Street.

18 ft. ¾" Pl. Iron Pipe.
1 ¾" Mal. Ell.
2 ¾" Nipples.

(Signed) WM. BLACK.

FIG. 13—CREDIT SLIP.

In order to prevent confusion it is better to have the requisition blanks printed on white paper and the credit slips on yellow, pink or some other color different from the requisition blanks.

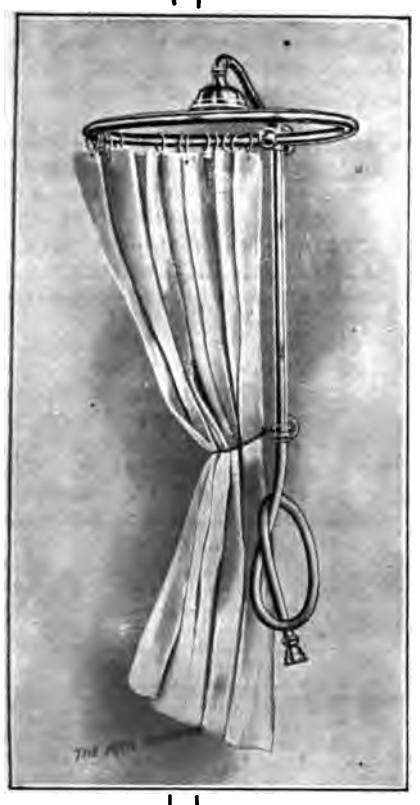
After a job is completed, these requisition and credit slips, and the orders or bills from the supply houses for material purchased from the jobbers direct for any job, should be checked up with the job tickets turned in by the workmen.

SALES BOOK.

There are many different methods of keeping the sales book. The old-fashioned method was to copy, by pen or hand writing, in the journal or day book a facsimile copy of the bill sent out. A later plan was to take a press copy of the bill in a letter-copying book. But since the advent of the typewriter it is the general custom now to make out the bill and a carbon copy on a yellow or manilla sheet at the same time

Date.	L. F.	Sales, March, 1913.	Bill No.	Contract Work.	Jobbing Work.
March 1	56	John Hancock, 410 N. 10th St	54		$5 00
1	103	Robert Smith, 1024 Howard St	55	$125 00	
3	86	John Doe, 44 N. 4th St	56		8 50
4	97	Richard Roe, 58 N. 11th St	57	75 00	
5	86	John Doe, 815 Market St.	58		2 25

FIG. 14—SALES JOURNAL.



Master Plumbers

An advertisement that is bound to bring you increased sales and profitable returns is

PECK'S "Sensible" Shower

in your show window or display room.

It is far ahead of any portable shower on the market. Has features that sell it at once *and make it stay sold*, giving increased satisfaction all the time.

We have a proposition on these "*Sensible*" Showers which will interest you. Write us.

The Peck Bros. & Company

127 Chestnut Street
New Haven, Conn.

219 W. 49th Street
New York, N. Y.

The CONTINENTAL FILTER

The standard for high-class residence installation for the past quarter century

BECAUSE

it combines these important features:

1. DOUBLE FILTRATION
   First through sand, then through bone-charcoal.
2. SLOW FILTRATION
   Obtained by a large filtering area.
3. THOROUGH FILTRATION
   Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. SIMPLICITY OF OPERATION
   Each cylinder controlled by a single valve, making no expert care necessary.
5. AUTOMATIC AERATING DEVICE
   By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.

The New York Continental Jewell Filtration Co.

15 BROAD STREET, NEW YORK

him in a rental. Why therefore should not his business pay him a rental for the use of his property?

Labor and materials are considered by everybody in estimating the charge which should be made for the article, repair job or a contract. They are considered because they have to be. Overhead expenses are neglected by many because they do not seem to apply immediately to the job under consideration. The load of overhead expenses should be borne by every job, contract and every article of supply that is made or sold.

Interest on the capital invested in the business should be provided for in figuring the profits on work. If the capital was borrowed the business would have to pay interest thereon and and the proprietor of the concern could obtain interest on his capital if were employed elsewhere; consequently the concern should be charged with interest as an expense of the business.

Insurance, light, heat, business taxes, stationery, depreciation of office furniture, tools and stock, advertising, subscription to trade journals, association dues, office expenses, driver's wages, horse and wagon expenses, freight, waste, breakage, lost time in shop, clerk hire, etc.—all these enter into overhead expense. It is not always practical or advisable to open a separate account for each such expense in your books, but they should be charged into the general expense account, or grouped into several expense accounts, keeping similar or related expenses together.

As the time lost in the shop often is an important factor, a record of all time paid to workmen which cannot be charged directly to jobs or contracts, should be kept in a memorandum book, and at the end of the year the wages account in the ledger should be credited and the value of the lost time charged to the expense account. Overhead expense should be prorated on labor alone, either by the method of amount of wages paid for on the amount of hours charged direct to work. But not on material, as one job may have practically no charge for the material, while another job may use a great amount of material. Profit should be added to the combined cost of material, labor, and overhead expense.

Successful Tourney of Eastern Trade Golfers.

THE regular Spring tournament of the Eastern Trade Golf Association was held on Thursday, May 15, at the Trenton Country Club, Trenton, N. J. Forty-three golfers responded to the notice of Secretary A. S. Armagnac. First prize was won by Robert E. Sargent, of the Standard Sanitary Mfg. Co. He received a beautiful sterling silver cup presented by the association. "Lew" Moore, of Portchester, N. Y., was presented with a walrus leather traveling bag equipped with toilet articles, donated by James D. Erskine.

D. I. Ashmun, of Bridgeport, Conn., was presented with a sterling silver cup, the gift of the association for being the third prize winner. R. J. Hauxwell, Portchester, N. Y., won fourth prize, which was a traveling bag presented by the Trenton Country Club.

Match play against Bogey was won by W. G. Titus, of the Trenton Potteries Co., who finished two up. Mr. Titus was presented with a handsome chocolate set, donated by the Trenton Potteries Co. Capt. J. Barton Garfield, of the American Radiator Co., turned in a gross score of 79, playing from scratch—one up on Bogey in this event.

Lunch was served on the veranda of the clubhouse, and because of the beautiful weather and picturesque surroundings this was by no means the least enjoyable of the day's functions.

Best ball foursome was won by E. H. Giles and Charles R. Fowler, each receiving a gold medal, the gifts of the association. The consolation prize was won by G. G. Schmidt, who was awarded a German silver Thermos bottle.

The banquet was presided over by President E. C. Molby, who also awarded the various prizes.

The banquet was served in time to permit the visiting members to take the 9.48 P. M. train over the Pennsylvania road.

We submit herewith the names of the golfers who participated in the morning and afternoon rounds, with scores set opposite their respective names:

MORNING ROUND—18 HOLE MEDAL PLAY HANDICAP.

	Total.	Handicap.	Net.
R. A. Sargent[1]	99	22	77
L. Moore[2]	104	25	79
B. I. Ashmun[3]	95	15	80
R. J. Hauxwell[4]	101	20	81
E. H. Giles	107	26	81
A. D. Forst	98	15	83
C. S. Wood	107	24	83
J. B. Garfield	84	..	84
C. R. Fowler	111	26	85
J. C. Parry	94	8	86
W. A. McPhail	106	20	86
W. E. Bowers	118	32	86
N. F. Wood	120	34	86
A. M. Maddock	119	32	87
C. F. Brown	91	4	87
S. W. Bowker	102	15	87
W. G. Titus	103	16	87
E. S. Aitkin	108	20	88
H. R. Watson	106	18	88
J. I. Simmons	97	8	89
W. H. Burnett	101	12	89
W. C. Matlack	111	22	89
F. J. Oliver	102	12	90
A. S. Armagnac	105	15	90
F. K. Chew	126	36	90
T. R. Cheyney	116	25	91
E. C. Molby	103	12	91
G. M. Scott	117	25	92
R. B. Hunt	110	18	92
G. H. Bell	92	..	92
H. E. Speakman	124	32	92
S. Roberts	98	6	92
L. G. Allen	119	25	94
J. M. Kipe	98	4	94
W. B. Lasher	103	8	95
W. G. LeCompte	129	34	95
W. T. Gilmour	129	34	95
G. E. Sly	103	6	97
F. F. Cooper	124	24	100
G. W. Pierpont	120	18	102
W. M. Cosgrove	142	40	102
J. A. Donnelly	152	40	112
G. G. Schmidt[5]	159	40	119

[1]First prize. [2]Second prize. [3]Third prize. [4]Fourth prize. [5]Consolation.

AFTERNOON ROUND—BEST-BALL FOURSOME.

	Total.	Handicap.	Net.
Giles and Fowler	95	26	69
Sly and Molby	82	12	70
Moore and Hauxwell	93	20	73
Simmons and Burnett	82	8	74
Titus and Lasher	83	8	75
Bowker and Pierpont	91	15	76
Maddock and Speakman	108	32	76
Aitkin and McPhail	97	20	77
Parry and Forst	85	8	77
Garfield and Gilmour	79	..	79
Armagnac and Hunt	95	15	80
Wood and Wood	105	25	80
Ashmun and Allen	97	15	82
Watson and Cheyney	101	18	83
Chew and Schmidt	119	36	83
Cosgrove and Donnelly	124	40	84
Brown and Roberts	88	4	84
Bell and Sargent	85	..	85
Scott and LeCompte	110	25	85
Oliver and Matlack	100	12	88
Kipe and Cooper	94	4	90

A considerable gallery was present during the day, noticeable in which were President J. A. Campbell of the Trenton Potteries Co. and party; Homer Addams, Kewanee Boiler Co.; James D. Erskine and J. Barnum, of the American Radiator Co.; W. R. Watters and W. G. McCormick, of the MERCHANT PLUMBER AND FITTER.

"Naco" Trade-Mark Adopted by the Confederated Supply Associations.

SECRETARY Frank S. Hanley of the national committee of the Confederated Supply Associations, has mailed to the affiliated members the following report of the standardization committee of the national committee on soil pipe and fittings:

J. J. Ryan, President National Committee of the Confederated Supply Associations, Chicago:

Dear Sir—Your committee appointed on standards, consisting of D. L. Hamill, Frank D. Keeler and John F. Wolff, have discussed at length, in meeting, the possibility of standardizing cast iron soil pipe and fittings, deeming it advisable to use the word "NACO" on extra heavy pipe and fittings only at this time.

In our opinion the following dimensions and weights should be adopted as a standard for the "Naco" proposition:

All pipe and fittings of 2-inch to 6-inch diameter must be marked with the manufacturer's name or appropriate initial.

Inside diameter: The inside diameter of the barrel of any extra heavy pipe or fitting or branch thereof shall not be less than ⅛ inch less than the nominal size of same. Except for the unavoidable irregularities, the full nominal bore must be maintained.

Wall thickness: A variation of 3/32 inch less than the figures below will be permitted, but only when the actual weight is not less than the estimated weight.

Wall thickness—barrel.....½ inch
Body of hub.....⅝ inch
Through bead of hub....⅛ inch thicker than hub
Through bead at spigot end.
⅛ inch thicker than spigot

Hubs: The depth of extra heavy hubs shall not be less than as follows:

	Inches.	Inches.	Inches.
Size of pipe	2	3	4 to 6
Depth of hub	2¼	2½	2½

Hub bead shall have at its greatest diameter a width as follows:

2 inches.	3 inches.	4 to 6 inches.
5/16 inch.	11/32 inch.	¾ inch.

The inside diameter of the hubs shall not be less than:

Inches.	Inches.	Inches.	Inches.	Inches.
2	3	4	5	6
3 3/16	4 3/16	5 3/16	6 3/16	7 3/16

Spigot: The outside diameter of the spigot bead must not exceed 2 7/16 inches on 2 inches; 3 7/16 inches on 3 inches; 4 7/16 inches on 4 inches; 5 7/16 inches on 5 inches, and 6 7/16 inches on 6 inches. The bead shall not at its greatest diameter be less width than 5/16 inch on 2 inches; 5/16 inch on 3 inches, and 11/32 inch on 4, 5 and 6 inches.

Caulking room: The spigot end, including bead of every fitting, must be straight without offset or change in direction for at least 4 inches; on traps this must be at least 5 inches.

Traps: The caulking room at spigot end shall not be less than 5 inches. Seal to be not less than 2½ inches.

Yours truly,

(Signed) D. L. HAMILL, FRANK D. KEELER, JOHN F. WOLFF.

McMann & Taylor Co.

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Plumbers', Gas and Steam Fitters' Supplies

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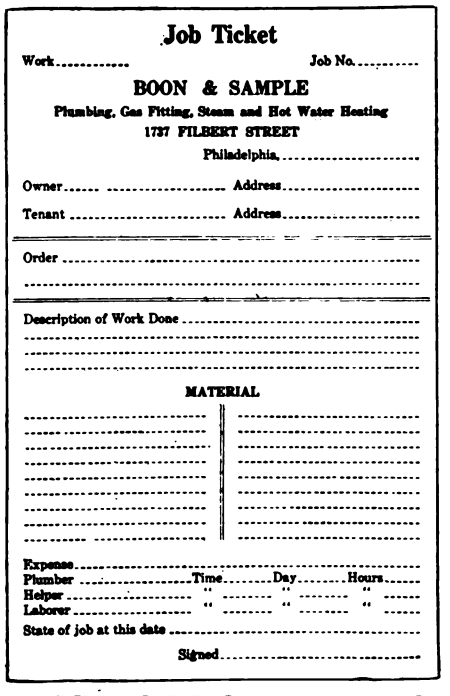

Do your workmen wait until the end of the week and charge up the whole week's work at one time?

Or do you use *our* Plumbers' Job Tickets, designed by our Mr. Fink, which compel the workmen to charge up daily all the time and material used on jobbing work?

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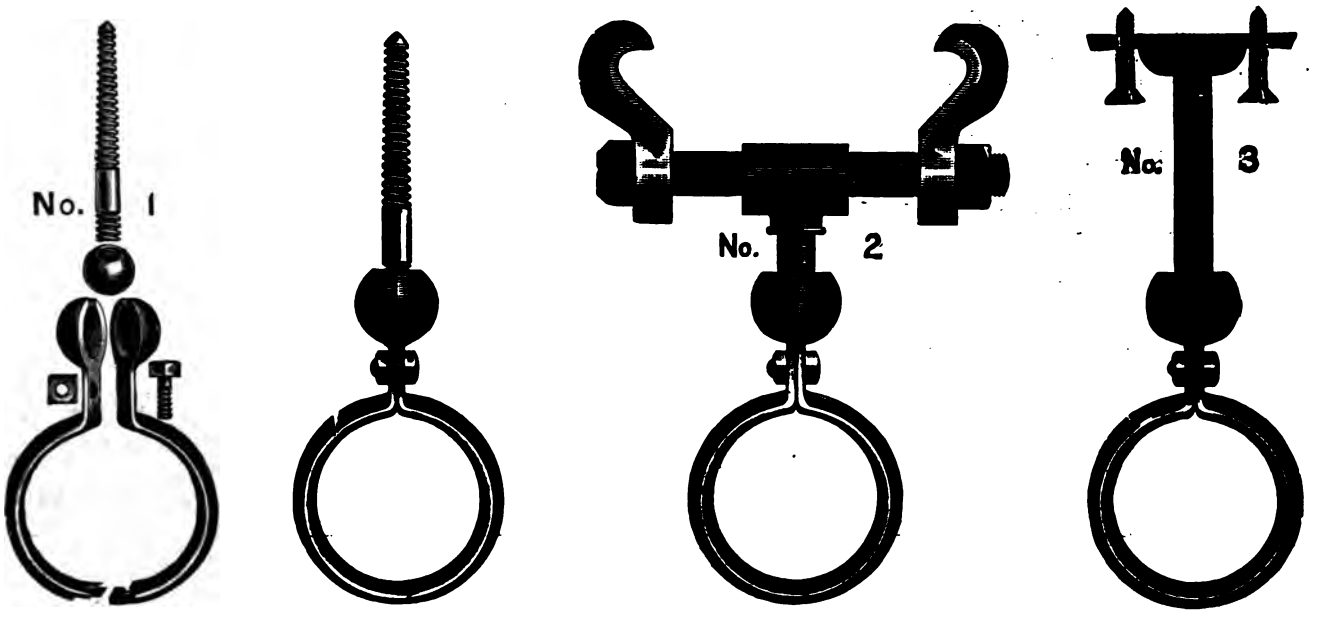
HANNA "BALL JOINT" PIPE HANGERS

HEAVIEST AND STRONGEST MADE—ALL SIZES MALLEABLE IRON



Manufactured by THE PENN ENGINEERING CO., PHILADELPHIA

Automatic Vacuum Steam Heating for a Residence.

By RADIATION.

NO one will deny that the cost of coal is higher to-day than ever before and for this reason it has become imperative to eliminate every avenue of waste in the operation of heating systems. In heating work, as in all others fields, the change of conditions requires new methods, and therefore vacuum heating, which is not new in the sense of being untried, appears to meet these requirements.

In some ways we might say that vacuum steam heating has been abused in the past few years by the number of devices put on the market, in which the ideas of inventors have been put into practice before their apparatus was perfected, and this fact has caused in some cases the condemnation of vacuum heating. Although so much has been written in recent years regarding vacuum heating, it is hardly necessary to state in this article that it is one of the most advantageous and economical methods of heating, but one should not understand by this statement that vacuum heating systems is a cure for all the ills of heating work, for even these systems may be installed or designed improperly.

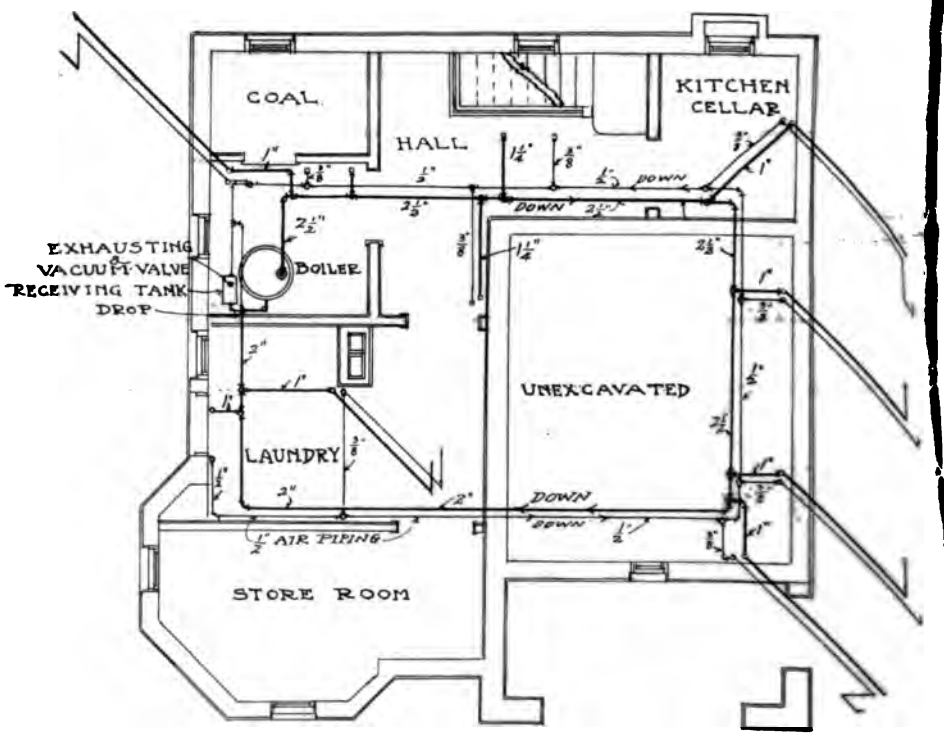
Vacuum heating systems may be divided into two classes, according to the method of creating and maintaining a vacuum. Namely, mechanical and automatic systems. Mechanical vacuum steam heating systems are now being used in large buildings with good results, but owing to the complicated equipment, it has never met with general approval for residential purposes.

Automatic vacuum heating systems which is a more simplified way of creating a vacuum than with a pump, because the vacuum is obtained direct in every radiator by connection to the air pipe to a specially designed valve, which is a decided advantage over the ordinary methods of heating for the reason that they eliminate the air valve which is one of the most annoying features of the steam radiator, especially in residences where the discharge of steam or water often damages the carpets, floors, walls, etc., also the absence of air from the radiators and pipes, causes a uniform heating effect throughout the entire system, which does not occur in the gravity system, because the steam follows the line of least resistance and forces the air out of certain pipes and permits it to remain in others, the differential pressure not being great enough to eliminate the air and heat the system uniformly.

The accompanying illustrations show the methods in which an Eddy automatic vacuum steam heating system was installed in a residence at Bedford Park, New York, N. Y., The system was designed with a one-pipe radiator connection, having a circuit main, and each radiator is controlled by a specially designed valve and fitted with an Eddy retarder, which in turn is connected to a three-eighth inch branch air pipe and carried to the basement and collected into a one-half inch main air pipe, which terminates in the boiler room. At the terminal of the main air pipe is located a receiving tank fitted with an exhausting and vacuum valve, also a water return valve.

The purpose of the receiving tank is to rcollect the condensation of water from the steam escaping through the several retarders, and return it to the boiler through the return water valve which permits this condensation to automatically return to the boiler when the pressure is at naught, it is located in a vertical position below the water line of the boiler so as to remain full of water, the outlet is connected to the return pipe above the water line, the exhausting and vacuum valve permits the air to escape under pressure, but automatically prevents the air from returning, it is located as shown in the accompanying drawing.

The retarder, which is shown in a sectional view, is funnel shape inside with a minute opening at the outlet end, which permits the proper venting of the radiator. All retarders are placed in position to drain with the outlet looking down. Union joints on the pipe connection to the retarders have been avoided, not for the ease in connecting, but because unions are more liable to leak or be unscrewed accidentally.



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IS OUR CATALOGUE No. 812 IN YOUR FILING CASE?

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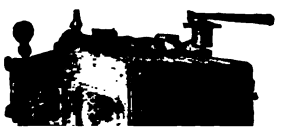
Williamsport, Pa.



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1415 COMMONWEALTH BLDG.

on the typewriter. All you need to do is to get sheets of manilla or yellow writing paper the same size as your billheads and a piece of carbon paper the same size also, and make out the two copies of the bill on the typewriter at the same time, and you then have for your files an exact copy of the bill sent out. Some firms make out the bill and carbon copy by hand, using a hard or indelible pencil or a special fountain pen made for that purpose. The bill is mailed to the customer and the carbon copy sheet is filed in a temporary post binder, or on the ordinary Shannon arch board file, until the end of the month.

As the bills are made out the yellow carbon copies should be entered in the journal as a matter of record, so that no sheet may be mislaid, and also to get the total of the sales for the month, and from the journal the charge should be posted to the customer's account in the ledger. It is not necessary under this system to copy the entire bill, but merely the date, name of the customer, location of job, bill number, if the bills are numbered, and the total amount of the bill, as in Fig. 14.

At the end of the month, after all bills have been made out and the yellow carbon copies of the bills have been entered in the sales journal, the yellow sheets should be filed away alphabetically in a suitable binder, vertical or box file, keeping all the bills for each customer filed together for the year, making a quick and ready reference at any time that it may be desirable to look over any particular customer's former bills.

Interesting Study of Life in Japan — Impossible for American Labor to Compete with Mongolians

THE present Japanese question, which has been considered by the legislators of California, has awakened a wide discussion as to the desirability of these aliens as land owners and lease holders of California and other States' property.

At the Canton, O., convention of the Buckeye State Master Plumbers' Association, held in February, 1912, a thoroughly enlightened talk upon this momentous question was made to the delegates upon the opening session in the Courtland Hotel by the Hon. Thomas F. Turner, who had been dispatched to the Pacific Coast by President McKinley to make a study of the labor question as affected by the Japanese and coolies. The conclusions which the good gentleman arrived at after considerable and lengthy study of the difficulties of the situation were assuredly against the Japanese invasion of California soil. American laborers, efficient, willing and experienced upon the fruit farms and other fields of endeavor, were operated against by the cheapness and variety of foreign labor to such an extent that the railroad tracks and freight cars were crowded at times, and this is a conservative statement with disappointed Americans, who were being shunted from the fruit farms because of their inability to compete with Japanese and coolie labor.

We are not acquainted with the conditions of the treaty between the Japanese Mikado and the United States Government, nor are we interested. We only know from statistics which are here presented that no American, no matter of how plebian tastes, can reasonably be expected to compete with the labor of the yellow race.

The following figures furnish sufficient testimony to the fact that the sooner yellow people are excluded from the domain of the United States the better will it be for all concerned, more especially for American labor which has to do with the raising and cultivation of fruit orchards, and the other departments from which it is now excluded because of the un-American competition of the Mongolians—in all truth, the white man's burden.

Seven thousand miles away is a nation of 52,000,000 people, whose average income is $23 a year. How do the Japanese live on such incomes? Their menu cards, if they had any, would read like this:

BREAKFAST.
Tea.
Dried Fish Soup.
Boiled Barley and Rice.
Miso. Tea.
LUNCHEON.
Tea.
Ball of Cold Rice.
Cold Broiled Fish
Tea.
DINNER.
Sake.
Vegetable Soup. Boiled Rice.
Sake. Miso.
Raw Fish Sliced. Rice Boiled.
Sake. Radish Pickle.
Tea. Sake

Or if you were to get a peep at the bookkeeping of a Japanese you would see something like this:

By one year's income	$23.00
To taxes	$4.40
To rent	1.60
To food	14.00
To clothes	2.00
To incidentals	1.00

The land of the fertile rice plains, or the mosquito breeding paddy fields, according to your viewpoint or your feeling point, is the place where a postage stamp buys a meal. If the menu offered does not appeal to you spend your two cents for baked sweet potatoes or rich, juicy "udon," macaroni made of buckwheat flour; with it have a sweet orange and tea and be happy. Why strive for high soaring steak, aristocratic Irish potatoes and the white loaf? Take three bowls of rice three times a day and be content.

For the rich there are additional delicacies, mostly from the sea; lobsters, oysters and many varieties of shellfish. In season there are persimmons, lequats, figs, pomegranates, grape fruit and mushrooms. For the poor there are great hunks of whale blubber and shark octopus flesh. For the modern there are milk, beef, pork, apples, bananas, corn and peas. Nor would his meal be complete without either beer or wine.

It is remarkable how the Japanese have taken to modern drinks. There are already three big beer breweries, and one may see the advertisements everywhere. The old time Japanese was satisfied with sake, rice beer or rich whiskey. It is a very strong liquor and he drank it in large quantities every night of his life.

A Japanese gives the following estimate of the monthly cost of living for a mechanic's family, in which the husband earns 37½ cents a day and the wife 12½ cents. In this family are two children, one nine, one seven, and an old mother of 60. The wages would amount to $15 a month if both worked 30 days, so this family is slightly above the average:

Rent	$1.50
Rice	4.00
Fuel, oil	.81
Vegetables	.81
Saving	1.00
Newspaper	.12
Sugar, soy, salt, tea	.92
Liquor and tobacco	1.35
School expense	.60
Children's allowance	.60
Bath	.37
Hair dressing	.26
Clogs	.24
Paper and matches	.10
Contingency	.80

The *Miyako*, a Japanese journal, gives the following estimate for a family of a little better standing. In this case, besides the married couple there are two children, a grandmother and a servant:

Rent	$2.50
Rice	3.50
Soy	.37
Salt, miso	.35
Sugar	.45
Milk	.55
Newspaper	.38
Vegetables	.75
Tea	.25
Oil (kerosene and vegetable oil)	.35
School expenses	.45
Stationery and books	.45
Hair dressing	.35
Bath (every other day)	.75
Fish (nine times)	.90
Beef (six times)	.60
Pickles	.21
Charcoal and wood	.90

In Japan there are only two men who pay taxes on an income of over $125,000 a year; there are 13 men who pay on $19,500; 67 who pay on $12,000; 96 who pay on $8,500; and 140 who pay on $5,500. Out of every 1,000 people there are seven who make at least $1,350 a year. The daily wages of workmen average as follows:

Weaver, male	$0.22	Harnessmaker	$0.35
Weaver, female	.13	Lacquerer	.30
Tailor, native dress	.27	Jeweler	.31
Tailor, foreign	.40	Blacksmith	.33
Shoemaker	.33	Potter	.32
Confectioner	.22	Gardener	.36
Carpenter	.40	Fisherman	.24
Plasterer	.41	Farm laborer	.19
Stonecutter	.47	Papermaker	.21
Sawyer	.39	Printer	.25
Tile roofer	.47	Day laborer	.26
Bricklayer	.56	Maid servant, monthly	1.48
Shipbuilder	.41	Man servant, monthly	2.18
Cabientmaker	.87		
Cartmaker	.32		

No wonder America seems a paradise to the Japanese newcomer. If he be a coolie

give degrees in the subjects (corresponding to bachelor of science and doctor of science). The late Prof. D. Rieschel, of the Berlin Technische Hochschule was considered one of the greatest authorities in this branch of work, more especially as regards heat lost and transmitted through walls, floors, etc., of buildings.

The high cost of raw materials, both for combustion and the heating plant iself, has necessitated greater economy in installing and daily operation, hence the obvious reason for their greater advance along these lines. Scientific study has enabled Germany advantageously to compete with all foreign competition, not only in their own country but in most others where tariff restrictions are not too great. In fact they almost exclusively supply South America, Austria, Russia and the Orient. Most of the larger firms not only possess branch offices for the distribution of their manufactured product, but also a staff of experienced engineers to make the required installation.

A good example of the advantages the German designer has derived from the careful and theoretical side of the subject is in the cost of laying out steam and hot water systems. An accurate knowledge of efficiencies and capacities of various sizes of pipe suitable to a given proposition enables them to greatly reduce the factor of safety in their estimates and give them a minimum cost for material. Much the same could be said where both direct and indirect radiation is used. As in case of power boilers, the design of the same for heating purposes (mostly cast iron) has improved greatly in the direction of economical fuel consumption, and great care is taken in installing and in the subsequent operation to insure a large heat output for a comparatively small amount of fuel burned.

The fuels mostly in use for this purpose are coke and a non-coking brown coal (lignite), the former being a by-product of gas works and reducing ovens and the latter a very cheap form of soft coal low in calorific units. The cheapness of this form of fuel has resulted in overcoming the difficulties of obtaining efficient combustion with such a poor class of fuel.

All towns and cities are goverened by a general and very strict smoke ordinance, which applies to house-heating as well as power boilers. At the same time all cheaper class of fuels, more especially of the lignite variety, tend to give a noxious and easily detected smoke when the combustion is not complete. Hence great difficulties have had to be overcome in manufacturing boilers to give satisfactory and economical service and at the same time to comply with the laws governing their operation.

House-heating boilers for both steam and water systems are sold on a basis of heating surface. The average price being 50 to 70 marks ($11.90 to $16.67) per square meter (10¾ sq. ft.) heating surface; depending on the size and quality. Radiation, on the same basis, costs 6 to 7 marks ($1.43 to $1.67) per square meter heating surface. It is usual to assume an additional 20 per cent. to cover the cost of installation.

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MALLEABLE IRON HINGED PIPE VISES
PIPE CUTTERS

PIPE THREADING and CUTTING OFF MACHINES

BOTH HAND AND POWER

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NEW YORK *Catalog mailed on request.* CHICAGO

New York State Master Steam and Hot Water Fitters Meet at Syracuse.

FORTY members of the Master Steam and Hot Water Fitters Association of New York State attended the annual meeting at the Onondaga, May 13, and registered their opposition to the custom of accepting contracts through general contractors.

Although no resolution was drawn up, the members agreed to endeavor wherever possible to have contracts for steam and hot water heating or ventilating work made only between the owners of buildings and heating contractors. A State law providing for direct contracts on all State and municipal work was cited as an example of the method that should be followed in all private building operations.

It is the contention of the association that direct contracts instead of subcontracts prevent tie-ups in building operations due to failures, reduces the general cost of sub-contract work and results in more satisfactory work for the owner.

The following officers were elected for the ensuing year: President, William H. Curtin, Brooklyn; vice president, Frank Leavery, Syracuse; secretary-treasurer, William H. McKiever, New York; Board of Directors, Samuel Wright, Buffalo; Edward F. Joy, Syracuse; W. J. Olvany, New York; Edward Towe, Rochester; M. Loring Danforth, Buffalo; sergeant-at-arms, William Scolly, Brooklyn; delegates to twenty-fifth annual convention of the National Association at Niagara Falls, June 23 to 26, Messrs. Curtin and Leavery.

The members closed their meeting with a banquet in the Hiawatha room.

Pressed Metal Radiator Co. Officers.

AT their organization meeting the stockholders of the recently incorporated Pressed Metal Radiator Co., of Pittsburgh, Pa., elected seven directors. The board organized by electing John K. Frye, president; H. C. Shaw, treasurer, and A. M. Pearson, secretary and assistant treasurer.

The average man's hands are not nearly so callous as his conscience.

McLoughlin & Donovan,

Wrought and Cast Iron Pipe and Boiler Tubes.
Brass and Iron Valves, Etc.

Plumbers, Gas and Steam Fitters' Supplies.

Pipe Cutting to Sketch.

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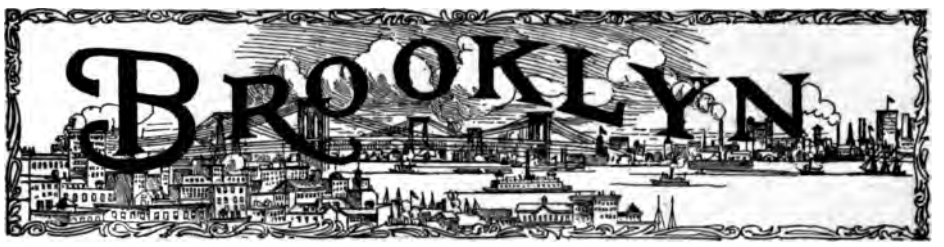
Engineers' Supplies a Specialty.



Fifty Propositions for Membership Received at Brooklyn, N. Y., Open Meeting.

WHEN half a hundred propositions are received in any one evening for membership in a master plumbers' association, it certainly must be written that open meetings are a success. Particularly is this so as applied to the Brooklyn association's open meeting which was tendered to the master plumbers of that city on April 30 at the Jefferson building, Court Square.

Invitations had been generously distributed, so that upwards of 300 members and non-members were present to enjoy the good time prepared for them by an able and painstaking committee, as well as to listen to the oratorical treats so splendidly offered by the many talented speakers of the evening.

Vice-President Matthew J. Kennedy, who is assistant superintendent of buildings and chief plumbing inspector of the city, opened the proceedings at 8.30 P. M. with an address of welcome. He spoke interestingly and at length of the advantages of membership. Stress was laid upon the elucidation of the new rules and regulations of the departments affecting the conduct of plumbing in the municipality, so that members of the association who are attentive to their duties upon meeting nights learn of the newer conditions under which they must operate and, consequently, evade difficulties and entanglements with the departments in question.

During the evening, said he, there would be distributed proposition cards for membership, and if, after listening to the addresses to be made by gentlemen of quality and experience, those who were not members were inclined to join with us their propositions would be received and acted upon. Without regard to joining or not, Mr. Kennedy stated that we were all gathered to enjoy the vaudeville program, eatables and drinkables provided for our pleasure and comfort, and he sincerely trusted all would have a pleasant evening.

M. F. Gleason, one of Brooklyn's most successful master plumbers and a prominent citizen for many years, who served as president of the association some few years back, was introduced by the chairman, and, as 10 minutes was the time allotted to the various speakers, he presented his remarks briefly but cogently, be it said. The advantages of membership from his point of view were particularly valuable because of the exchange of experiences with the older heads who, through many years' activity in the plumbing business, were qualified to expose the various pitfalls in the craft and point out ways for economically and expeditiously conducting one's business. Ever since his entrance into the business he has been a member of the association, and in his experience success usually followed a membership with the Brooklyn organization. Each meeting night something unusual and interesting is offered in the way of education through intercourse with our fellows in the trade, and in his judgment it was particularly desirable for the younger element to join immediately upon their graduation from the ranks. Mistakes of others, and mention of them, serve advantageously to others. Membership in our association is as essential as life or fire insurance. Knowledge for the successful conduct of the business can come only from those who have been through the mill, and the excellent fellowship that exists between new and old members alike furnishes educational features

JOHN W. SANDS, BROOKLYN, FORMER PRESIDENT BROOKLYN ASSOCIATION.

which must necessarily lead one into the channels of success.

National President Frank J. Fee was escorted to the platform by John W. Sands. The national president, whose term of office has been a successful and economical one in every respect, and under whose wise and capable administration the national organization is in a robust and healthy condition—in short, better than ever before, was warmly welcomed by his audience. He paid a tribute to the members of the organization as citizens of the first order, whose interests were always for the welfare and advancement of their town or city and whose primary purpose was the contagion of good health through successful and skilful installation of plumbing and correction of sanitary ills and abuses. All legislative enactments looking to the betterment of sanitation in all the States, cities and townships are directly traceable to the master plumber's organization or its beneficent influence. Mr. Fee regretted that 10 minutes was the space of time set apart for arguments in favor of membership.

"Were it 10 hours," said he, "it would not be a sufficient length of time for me to point out the multitudinous advantages which association with the Local, State and National associations surround their members.

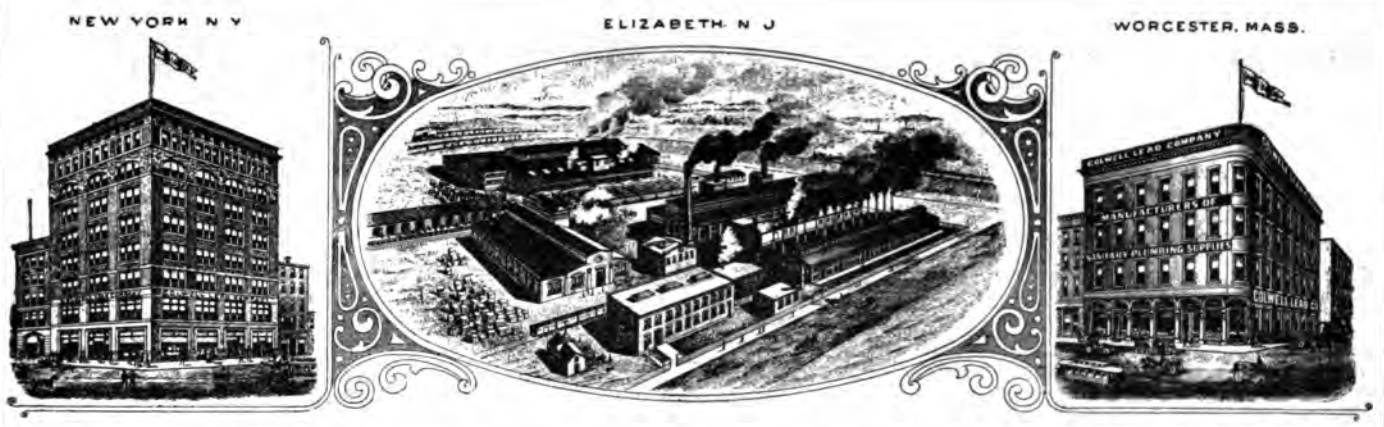
"In your city membership in the Brooklyn association serves as a card of introduction to Chief Plumbing Inspector Kennedy. His natural inclination to those engaged in his own craft and his knowledge of the great good accounted for by the Brooklyn association, as well as the creditable achievements toward good government of the members, secures a warm reception when calling upon this excellent municipal official."

President Fee referred feelingly to the sad calamity which, without warning, beset in all its horror the members of the association in Dayton, O., and countless others. "But specially," said he, "are we concerned with the disaster as applied to the members of our organization. Immediately the National Association sent aid and succor to its stricken brethren in the devastated city, and so far as we are able we will help our members to regain their places in the commercial world. Savings of 30 years were wiped out with one fell swoop. The marvelous fraternal spirit which pervades the entire fabric of the organization prompted immediate relief, and ours was the first to rush to the aid of the suffering in the city of Dayton, O." This spirit alone, thought he, would prove a wonderful factor in securing new members.

"Four times a year a red book containing the names of members of the entire organization is published," continued Mr. Fee. "The very fact that your name appears in this association roll of honor recommends you to your neighboring master plumber, whether in your next town, State or any place in the nation. If it were desired that tools be borrowed, assistance of any nature, even financial, be received, each and every member in that red book will set himself about the relief and aid of his fellow, provided, naturally, his name is listed.

"The wonderful protection to the trade which emanated from the minds of the wise men in organization affairs some 30 years ago, and the mantle of which protected all alike, whether members or not, was an accomplishment which peculiarly belonged to the master plumbers. In all other fields of endeavor, more particularly in the building construction line, purchases of material may be made by anyone. Not so in our business." Another salient and powerful reason, thought he, for affiliation with those who brought about so desirable and valuable a condition. Nor could it be said that high dues were a deterrent. Sixteen dollars per year was a ridiculous price to pay for the endless benefits accruing, and continuously so, from membership, declared President Fee. Divided this would amount to less than five cents per diem.

In his own local association in New York City, instead of soliciting membership, master plumbers not affiliated are importuning the Manhattan association to accept them.



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Manufacturers and Jobbers of

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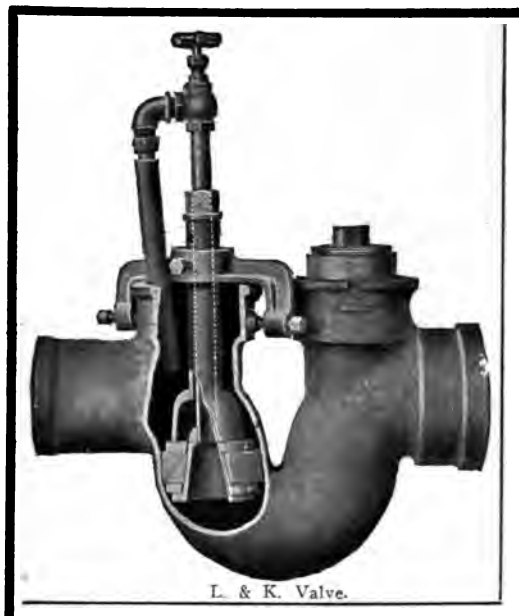

L. & K. Valve.

L. & K.

Testing Valves and Plug

Patented September 6, 1898
No. 610,452

THE DEVICES herein illustrated have been invented and perfected by a plumber for the plumber—more particularly for the up-to-date plumber, who does a job to be a job. And as the proof of the pudding is in the eating, so the wind-up of a plumbing job should always be a thorough test of all the joints before the work is accepted.

L. & K. Test Plug.

The architect usually insists on such a test, and the plumber goes to an immense amount of labor and expense to convince him that the work is O. K.

But why should there be this expense to accomplish that?

No pressure test can be made unless all the outlets are effectively stopped, and there is where the expense "comes in" unless you chance to have in your equipment of tools a set of L. & K. TEST PLUGS AND VALVES.

Send for Booklet giving full description.

JOHN SIMMONS COMPANY

110 Centre Street, 48 East 41st Street, NEW YORK. **Bush Terminal, BROOKLYN**

He was positive that sooner or later a similar state would exist with regard to the Brooklyn local. Regarding increased membership throughout the country, he was extremely hopeful that the Philadelphia annual convention would show an increase of from 400 to 500 names.

The national president spoke of the excellent feelings of amity and harmony which existed with the manufacturers and jobbers. He paid attention as well to the question of consequential damages, and also stated that the matter of disputed claims was being worked out satisfactorily. "If each and everyone will do his share toward the upbuilding of the organization and the safeguarding of its interests," said he, "the benefits to be derived will encompass us all alike.

"Literature is about to be distributed from the national office to every member in the red book looking to a correction of figuring, particularly as regards contracts. It has been said, and wisely, that the only way to secure a contract is to forget something."

Great applause followed the excellent and sensible talk delivered in characteristic style by the national president.

Commissioner Pounds of the Highway Department, an old friend of the Master Plumbers' Association of Brooklyn, and who has been with us upon several occasions in recent years, was warmly received upon introduction by Chairman Kennedy. Mr. Pounds humorously at first spoke of an advantageous alliance which might be effected between the master plumbers and the real estate men, of which, when not in municipal harness, he was one. In a serious vein he thought it was extremely desirable that men in any calling should organize. Affiliation and the principles of co-operation always established good results when emanating from the organization of sensible and earnest men, such as the master plumbers. Organization, he thought, made for efficiency, honesty and progress.

For a moment talking shop, the commissioner mentioned the 30,000 cuts and openings in the streets of Brooklyin in a year which it was necessary for his department to cover up in its trail of the master plumbers. "This is a stupendous task, gentlemen," said he, "but it bespeaks the progress of the artisans of your craft." In mentioning the efficiency and astuteness of the beloved "Matt" Kennedy, he stated that it should be a matter of honest pride for the association to have one of its members, so peculiarly qualified, in the otnce occupied by him so practically and so intelligently.

At this point in the proceedings President D. J. Donovan advanced to the front of the platform and stated that he had something to say which necessitated the presence alongside of Mr. Kennedy. The latter gentleman was dragged upon the stage from an argument with the boy comedian, and while he stood at attention, thoroughly innocent of the intentions of his senior association officer, between National President Frank J. Fee and National Secretary Charles Murphy, President Donovan briefly but adequately described the admiration which the entire Brooklyn membership held for its popular fellow member, due to the uniform courtesy with which he conducted his office in the building department, as well as his great helpfulness in the removal of obstacles from the paths of business and the all-round superiority which manifested itself in Mr. Kennedy's every move. Mr. Donovan, continuing, stated that a great honor had been conferred upon him by his associates in selecting him to present to Mr. Kennedy a token of their esteem and deep regard. Presenting him with a diamond of the "purest ray serene," Mr. Donovan sincerely hoped that he might live on in happiness and prosperity until the brilliance of the gem was dimmed.

Thoroughly flabbergasted, Mr. Kennedy disavowed any special merit in his conduct of office. What he had done he did through his proper conception of duty, and he could not for the life of him understand why the Brooklyn boys should be so "craze in the head" as to purchase so valuable a ring for

Courtesy Brooklyn Citizen.

D. J. DONOVAN, PRESIDENT OF THE BROOKLYN MASTER PLUMBERS' ASSOCIATION.

him. "I didn't think there was money enough in the world to purchase a sparkler like this," said "Matt" facetiously. "Really, now, I will not take a back seat when 'Al' Reeves flashes his headlight. I will just light a cigar with my ringed hand and watch the 'Beau Brummel of Burlesque' (observe the alliteration) fade into the cicumambient ether."

All very well, indeed, "Matt," for you to have exuded the above from your system at that time; for, poor fellow, you did not know then what further was in store for you.

While the recipient's knees were weakening and his emotions were arising at the thought of the spirit of brotherly love which was conceived in the breasts of his fellows, he was utterly put to rout by a handsome mahogany case of Gorham silver, each of the 247 pieces initialed "K," which President Donovan stated was more of a presentation for the house and would, he sincerely trusted, serve as a peace offering to the charming wife of Matthew for the many evenings he was absent from home upon labor bent for the benefit of the Brooklyn association.

Mr. Kennedy simply could not bear the burden further. He retired from the glare of the footlights, and later on, when regaining his composure, stated in sincere expressions his heartfelt thanks for the bounteous gifts of his esteemed fellow members.

J. P. Byrne, plumbing inspector of the building department, detailed to run down and prosecute the unlicensed and alleged plumbers—albeit, the gentleman is a practising attorney—spoke of his experience in his important work for the health of the community and the protection of the legitimate master plumbers from the encroachments of those unqualified to conduct a plumbing business. Incidentally, Mr. Byrne mentioned the 36 cases for which he had secured convictions last week.

National Secretary Charles Murphy stated that in his opinion no valid reason could be offered for legitimate master plumbers not joining the association. The legislative enactments secured by the various State associations were for the good of all engaged in the business.

"We are ever upon the alert for the benefit of each and every member of the craft," said Mr. Murphy. "Through the efforts of the Manhattan Association of Master Plumbers, surety company bonds, despite the antagonism of the city officials a few years back, are now not necessary so far as New York City is concerned. Real estate or personal bonds are acceptable. This new arrangement was only secured by concerted effort and after a hard fight. Not only do our members enjoy the advantage of this and the consequent saving of the cost of the surety bond, but all those engaged in the business as well."

The question of consequential damages was brought up. The result of the suit of a pipe bending company in Newark, N. J., against a steamfitter in East Orange, N. J., in which the fitter in question was adjudged as having acted within his rights in withholding from the bill the cost of the coil which was not up to standard and the cost of the labor necessary for installation of the new coil, was explained by the national secretary. "From the lower court right up to the Court of Errors and Appeals, which is the court of last resort," said Mr. Murphy, "the judgment in favor of the fitter was affirmed. It is the business of the various association members to know these things. And we do. When you younger men join with us you, too, will enjoy the benefit of this and other knowledge as fast as developed."

The department committee, which takes up disputes between individual members and the municipal departments with which they have to come in contact, was also referred to by Mr. Murphy.

"The greatest achievement, in my humble judgment," said Mr. Murphy, "was the accomplishment of the passage of the bill separating plumbing, heating, etc., from the general contract upon public and municipal work, and which will serve as an entering wedge for the elimination of the general contractor upon private work." This state-

ment was greatly cheered by the interested listeners. Continuing, Mr. Murphy said that some general contractors are all right, but they are greatly in the minority.

The national secretary likewise referred to the fraternal spirit which prompted the immediate relief, so far as lay in the association's power, of the desolated members in Dayton, O. "So that you can see that aside from the commercial status of our business," said Mr. Murphy, "an ethical side to our affairs has long since been brought into existence. For many years has this splendid side of the master plumbers' association been operative. As far back as the San Francisco disaster and the Galveston flood, which preceded it, has the heart of the member of our organization led his hand to his pocket for the relief of the needy and suffering. I am a member of many fraternal societies and other associations, but nowhere does the spirit of fraternalism exist so spontaneously and humanely as in this beloved national association of ours. Gentlemen, and I address those non-members within sound of my voice, join with us and enjoy the uplifting influence which the association inculcates in each and every one. Believe me, there is no happiness so pure as that which springs from the reflection of good resulting from our efforts in behalf of others.

"No business in the world is surrounded with so many vexatious troubles as this one of ours. When trouble, therefore, arises, consultation at the times of meeting with our seniors invariably point out avenues of escape from the harassing circumstances or alleviation thereof follows. Since my entrance into the plumbing business I have been a member of the organization. Whatever success has met my efforts can be attributed solely to the helpfulness of my fellow members and the education which has been imparted by those older and wiser in the conduct of the business.

"The dignity of our organization permits us to call upon any city, State or national official, and when our demands are reasonable, as they always have been, our experience has been that whatever was desirable we have been able to secure. Retired members of the association, some between 70 and 80 years of age, attend every Manhattan meeting. This surely must prove the God-given fraternal spirit with which our association is endowed. Gentlemen, these seniors month after month and year after year attend our meetings. The bond of friendship and honest sympathy between old age and youth is nowhere better exemplified than at our association meetings."

Mr. Murphy spoke of the new Building Code which has recently been established for the greater city. "The experience and wisdom of the organization were secured by the city officials, who invited the association to send members to the meetings of the various borough building superintendents," said the national secretary. "I merely mention this to show to what extent our organization is recognized.

"In conclusion, gentlemen, my words are, 'Be ever upon the alert. Through vigilance we must approach success.' Were I asked to write a code of morals for the association it would be, 'To thine own self be true, then thou cans't be false to no man.'"

Great applause met the termination of the national secretary's address.

Joseph Corcoran, chairman of the jobbing committee, was introduced, and spoke of the success which has been enjoyed by this committee in the collection of slow accounts. Members are entitled to submit accounts which they find difficult of collection to this committee. Up to date more than 60 per cent. of the accounts which members were unable to collect have been paid through the activities of Mr. Corcoran's committee. This statement was greatly applauded by the entire assemblage.

Thomas E. O'Brien, former president of the association and a member of the New York State executive committee, was introduced. Mr. O'Brien stated that the ground had been thoroughly covered by President Fee and Secretary Murphy of the national association. He added that our organization extended from Maine to California. "Any breach of conduct on the part of a manufacturer or jobber was promptly known in every town, city and State where there was an association, so alert are the members to their rights, and unfair treatment is not tolerated," said Mr. O'Brien. "The inclination of all the jobbers is for fair treatment in their relations with us. We all know that in union there is strength. Our concentrated efforts and cohesion of purpose" (shades of Beverly preserve us!) "are paramount factors in the success which has been maintained by the national association for 31 years and whose record year after year is one commanding the respect of all engaged in the plumbing business, from whatever angle."

Mr. O'Brien also dwelt upon the educational advantages where a member, through lack of knowledge or its proper application, can immediately be set upon the right track by his neighbor, who perhaps has previously stumbled upon the same obstacles, and thus a threatened adversity is turned into success. He mentioned as well the splendid treatment accorded by the various departments of the boroughs. He also stated that in every sense was this an open meeting. All present had the privilege of the floor, and any questions propounded to him at this time he would answer to the best of his ability.

A volley of questions were put and answered satisfactorily by this trade savant. Edward Macdonald also lent his experience as a plumber of experience and wisdom, and a member of the examining board, to the clarifying of a question or two.

A clean, snappy vaudeville program had been arranged by Chairman Kennedy of the reception and entertainment committee. Several soloists of excellent voice and ability to get their songs and quips over were heard to advantage by those present. The boy marvel, Dink Botts, held the stage for 10 minutes, and a recitationist of skill and technique of more than ordinary calibre delighted us with English splashes.

The evening was one of education and entertainment. The addresses were illuminating, and the orators, condensing their talks to 10-minute or longer periods, were convincing and interesting.

The MERCHANT PLUMBER AND FITTER, the only trade paper in attendance, was represented by W. G. McCormick, for the many courtesies to whom we are duly grateful.

New York State Steam Fitters' Convention.

THE call for the annual convention of the New York State Association of Steam and Hot Waters Fitters to meet at Syracuse, N. Y., at the Canandaigua Hotel on Tuesday, May 13, has been issued by President Samuel Wright, of Buffalo, and sent to the members by Secretary Henry D. Gombers.

The contract for the heating and plumbing for the new school building at Milroy, Ind., was let to the American Warming & Ventilating Co. for $5,372.

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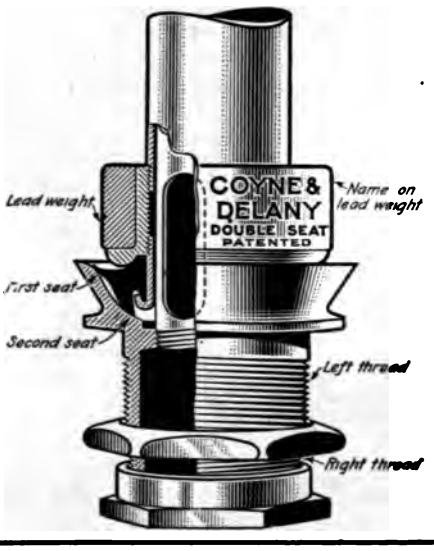

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Quickly repaired—simply pull up the plunger.

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Manufacturers, Jobbers

Three thousand persons interested in your manufactures and v Master Plumbers in the City of Philadelphia, Pa., June 17, 18, daily editions in connection therewith. The accompanying le presented at the Salt Lake City 1912 convention.

August 8, 1913.

Editor MERCHANT PLUMBER AND FITTER:

Dear Sir—You are to be congratulated for the excellent manner in which you reported the Salt Lake City national convention in your various daily issues. The clean manner, too, in which the news outside of the convention report was presented attracted considerable attention of a commendatory character from the officers of the association and delegates with whom I conversed. If you keep up the good, careful and earnest work, evidence of which in plenty appears in your Salt Lake City editions, you assuredly will win and hold the confidence and respect of the entire organization membership.

Sincerely yours,

F. J. FEE,
President National Association M. P.

New York, August 5, 1912.

Editor MERCHANT PLUMBER AND FITTER:

Dear Sir—Your four daily publications at Salt Lake City in connection with the recent national convention were read by me and the members of my family with interest. I attended each and every session of the convention, and having closely observed what transpired therein, I am in position to say that yours was a thorough, accurate and comprehensive report.

The features outside of the convention proper presented therein were interesting and instructive. Your successful efforts to produce a morally clean and upright paper must certainly commend you to master plumbers throughout the country.

Very truly yours,

FRANK B. LASETTE,
President New York State M. P. A.

Evansville, Ind., August 13, 1912.

Editor MERCHANT PLUMBER AND FITTER:

Gentlemen—In reply to yours of July 31, in reference to your daily publication at the national convention, beg to state that the writer found your daily issue one of great interest and strictly up to the moment in all of the convention's proceedings.

I feel that a publication of this character is of great benefit to the delegates in attendance of the national convention, and that future publications should be encouraged at these meetings, as they have a tendency to increase the interest vention.

Wishing you every success in the future, I am

Yours very truly, WM. J. WOOI
Pres. I. S. A.

Chicago, Ill., August 1

Editor MERCHANT PLUMBER AND FITTER:

Dear Sir—On my return home I found your l 31 awaiting me. I regret my absence from the c the cause of holding up my reply to your inquiry. to my passing criticism on the daily paper publis company during the recent convention at Salt would say that I have none to offer. On the con agreeably surprised to see such a neat and con turned out by yourself and associates, and you p feel very proud of your achievement.

Wishing you continued success, I remain,

Yours truly, CHAS. T. BY
Former National Secretary N. A

Baltimore, July 3

Editor MERCHANT PLUMBER AND FITTER:

I have just returned to my desk from the Sal vention and hasten to give you a word of comm the most creditable showing which you made wit publications during the convention, as in my ow the result demonstrates great enterprise on your p intelligence displayed in said publications was visible. I therefore congratulate you most heartil I would not write, as I have no patience whatever paper which professes to be one thing and its act another; but in the case of your paper it seems to in the true spirit of journalism, and as long as it that direction it will have my most hearty support

Yours most sincerely,

JOHN TRAI
National Director N. A

Washington, D. C., July 3

Editor MERCHANT PLUMBER AND FITTER:

Permit me to take this opportunity of compli

Our Philadelphia editions will be earnest, accurate, and com Trenton Potteries Co., Thomas Maddock's Sons Co., L. Wolff M Co., Rome Sanitary Co., I. X. L. Pump Mfg. Co., Joseph A. Vog Rates for desirable two-color spaces upon application. W before the quality of the trade. There are twelve hundred obligated to make reports thereto. Our editions are brought

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Specialists, Attention !!!

the thirty-first annual convention of the National Association of
THE MERCHANT PLUMBER AND FITTER will publish four
d by us subsequent to the publication of our four daily editions

daily issue of THE MERCHANT PLUMBER AND ssued for the national convention at Salt Lake City; y that it was a snappy, clean sheet, full of news of the delegates in all issues.

Yours very truly, W. D. NOLAN,
Former National President N. A. M. P.

East Orange, N. J., July 31, 1912.

ERCHANT PLUMBER AND FITTER:

me to say that I as a member of the National Asso- f Master Plumbers was greatly pleased with your gazine issued during our Thirtieth Annual Convention ake City. I considered it a clean, truthful, up-to-date d added considerable entertainment for the delegates ready overflowing bowl provided by our Salt Lake hers.

ll your future efforts meet with the same approval by ership as did those of Salt Lake City.

Very sincerely yours,
A. SELDEN WALKER,
Former National President N. A. M. P.

Decatur, Ill., August 2, 1912.

ERCHANT PLUMBER AND FITTER:

ffort of THE MERCHANT PLUMBER AND FITTER ing a daily paper for the delegates at the Salt Lake vention, July 16, 17 and 18, was commendable in- 'ou had a bright, snappy little publication which re- edit on its promoters and editors. Notwithstanding that it was the initial effort of THE MERCHANT R AND FITTER in the publication of a convention e undertaking was carried out as successfully as if engaged in the enterprise were old hands at the

Very truly yours
H. MUELLER MFG. CO.,
By C. N. Wagenseller, Advertising Manager.

Minneapolis, Minn., August 2, 1912.

ERCHANT PLUMBER AND FITTER:

with a great deal of pleasure that I read while in e City the four daily publications of THE MERCHANT PLUMBER AND FITTER. I looked forward each day to the morning of the next, anticipating the nifty morsels of gossip and the chatter concerning the delegates and their hosts. Then, too, the business of the day was given careful consideration and gave some of us who nodded a new insight into the matters of interest which transpired while we were in the Land of Nod. The camera shots were particularly inviting and made it a great deal easier for some of we amateur conventioners to become acquainted with the old-timers who were instrumental in founding the National Association.

With best wishes, I am,
Yours sincerely, W. W. HUGHES,
President Minn. M. P. A.

Lowell, Mass., August 5, 1912.

Editor MERCHANT PLUMBER AND FITTER:

I wish to express to you my appreciation of the sincere efforts that you made in your daily publication at Salt Lake City.

I admire particularly the high character of your journal, and hope that you will continue your efforts in this line, and give us the high class journal that you have in the past, which I know is appreciated by all plumbers who are your subscribers.

Yours very truly, RICHARD J. WELCH,
President Mass. M. P. A.

New York, May 9, 1913.

Editor MERCHANT PLUMBER AND FITTER:

Dear Sir—The importance of national conventions of the Master Plumbers' Association renders it necessary that accurate, dignified and conscientious attention upon the part of the press be given the various business sessions. The deliberations of this great body of sanitarians concern the entire citizenry of the United States. Flippant and ridiculous presentations of our meetings serve to increase the disrespect which has been engendered by the alleged jokesmiths of the press. In all seriousness you are to be congratulated for the excellent, decorous and conscientious manner in which you served the interests of our organization by your four Salt Lake City daily editions. I heartily join with your many friends in wishing you every success. Sincerely yours,

CHARLES MURPHY,
Secretary National Association of Master Plumbers.

ations. They furnish exceptional advertising values. The , Monument Pottery Co., New York Continental Jewell Filtration prominent national advertisers have contracted for space therein. uest your consideration of these dailies as a means of appearing affiliated with the National Organization, and the delegates are cals by the delegates.

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NEW YORK, MAY 10, 1913.

Considerable Increase in National Membership Looked For.

In conversation with National President Fee the other afternoon we were apprised that some 400 or 500 names are confidently expected to be added to the red book between now and the Philadelphia convention to be held next month. Massachusetts alone will present approximately 100, and in the Boro of Brooklyn, N. Y., an open meeting recently held developed upwards of 40. Experience at national conventions for many years past has established the fact that a hearty appreciation is always accorded the States and locals which show increased membership. There is ample time for the members to get together and make a splendid showing at the Philadelphia convention. Open meetings really are the means for gathering in new members legitimately engaged in the master plumber's pursuit. Incidentally, the National Association is in a healthier condition than ever before, gauged from every angle, so that fact alone should stimulate the members to renewed activity.

Comparison of Assessed Valuations.

The United States experts have found that New York in land value is far ahead of the other leading cities of the United States. They have established the fact that the assessed value of New York is equal to a third of the total land value of 184 cities having a population of upward of 30,000 each. These 184 cities had in 1910 a total valuation of over $26,000,000,000. New York's assessed valuation for that year was in excess of $8,000,000,000, which is almost a third of the former figure.

Of the first figure, 67.2 per cent. represents the value of 17 cities having a population of more than 300,000. The assessed valuations of some of these cities outside of New York are: Chicago, $848,994,536; Philadelphia, $1,458,851,880; Boston, $1,409,479,723; Jersey City, $241,561,118. Real property: New York, $7,044,192,674; Chicago, $603,022,875; Philadelphia, $1,457,108,534; Boston, $1,118,992,100; Jersey City, $184,481,409. Personal property: New York, $312,644,825; Chicago, $208,607,727; Boston, $273,471,478; Jersey City, $16,347,760.

Exit the Common Towel.

The common towel, the great collector and purveyor of dirt and germs, has been ordered out of cars and vessels engaged in interstate commerce. This action of the Secretary of the Treasury will be as generally approved as his order abolishing the common drinking cup from interstate carriers. And it is as earnestly demanded by the requirements of sanitation. When the drinking cup and the towl, as articles of common usage, are joined by the finger bowl, the three most deadly of all articles of everyday use in their baneful distribution of germ life, much will have been accomplished for the betterment and preservation of public health.

Revision of the Building Code.

The commission recently appointed by the Board of Aldermen to consider the revision of New York City's Building Code has a most important undertaking before it. Fifteen thousand dollars, the sum of money accorded it for covering the expenses of investigation, appears small indeed when we consider the great variety of interests involved. The code is to regulate such a large range of building operations, and each one must be considered for so many varying conditions that the difficulty of establishing a definite, economical and satisfactory set of working rules is readily seen. Elsewhere in this number we devote some considerable attention to the various angles with which the recently appointed commission will apply itself.

Revised Plumbing Rules and Regulations.

Since our initial number we have been presenting to the students of the craft a series of illustrated and interpreted "Revised Plumbing Rules and Regulations of New York City." These made an instant hit, not only with those engaged in the plumbing business in the metropolitan district, but with engineers and architects, in addition to the craftsmen, from various sections of the country, they, realizing that New York would only have the best, showing their interest in the presentation by repeated requests for the entire set. These communications have even been addressed to us from Northwest Canada. The very fact that "New York" appears in the caption might ordinarily suggest that these rules and regulations were offered for the benefit of New Yorkers alone. Our idea that they would be found of unusual interest to the entire country has been borne out by the enthusiasm with which their publication has been met. Our readers realize that the services of renowned and skilful engineers and trade celebrities were called into play in the formation of these revised rules and regulations, and necessarily what is considered best by unbiased and qualified opinion for the most populous and wealthy city in the Western Hemisphere must likewise be looked upon as desirable by other municipalities in the United States. By the way, these rules and regulations have been incorporated, and will be, by prominent cities of the country in their codes.

Philadelphia National Convention.

Those who attended the annual convention held in the City of Brotherly Love some 18 years ago have ever since remembered its every success. The sessions were splendidly attended. The impetus given to the "National" because of the deliberation and consideration of questions looking to the advancement of sanitation was wholesome and desirable. Aside from the business meetings, the entertainments were such as conduced to the spiritual and physical welfare of the many attendants. The memory of the good times enjoyed has prompted the greatest number of master plumbers, whether delegated to attend or not, to engage rooms at the headquarters and neighboring hotels. One can readily prophesy that from a point of attendance the annual meeting of the organization next month will be the biggest ever held. Each Tuesday afternoon the chairmen of the many committees meet, and a series of delightful entertainments is being developed for the pleasure and comfort of the delegates, association members and guests

that surely will rival in brilliancy and diversity anything reported in the "Arabian Nights." You simply must attend! Naturally it will take some time away from one's business. But what an infinitesimal percentage of eternity is two weeks. Expense? Mention it not! National Treasurer McCoach says, and has repeatedly affirmed to the members, that "shrouds have no pockets." Join with your brethren from all over the entire country and learn what a stupendous and mighty moral force the National Association of Master Plumbers really is. "I have spoken."

A Promising Young Westerner.

OUR far western correspondent secured a photograph of a promising young man, the son of a prominent Butte, Mont., master plumber who has been active and prosperous in the craft for many years.

MASTER WALTER FORBES, BUTTE, MONT.

The subject of the sketch is Walter Forbes. We are advised that Walter is a participant in the various athletics attached to his school course and gives promise of developing into a first-class pitcher, a great halfback and a golfer of note. With these qualifications, there is no question but what Walter will make good when it is time for him to put on the harness of commercial life.

Open Meeting Held at Newark.

A LARGE number of plumbers and heads of local supply houses attended the open meeting of the Newark Master Plumbers' Association at Newark, N. J., on the evening of April 24 and listened to an interesting address by State Secretary Henry F. Baillet on "Overhead Expense."

Mr. Baillet explained that in conducting either a large or small business there are things that have to be paid for, like rent, interest, taxes, postage, bookkeeping, and a host of other things that cannot be charged directly in bills, but which must be included in an amount above material and labor or there will be no profit. He urged the custom of basing all estimates and bids on the selling price.

Among the other speakers were Charles H. Harrison, of Harrison & Walker, Orange, and Jacob De Vausney, of Newark.

Refreshments were served at the close of the meeting, and each and every one felt that they were well repaid for their attendance.

Brooklyn's Chief Plumbing Inspector Honored.

MATTHEW J. KENNEDY, Assistant Building Superintendent and Chief Plumbing Inspector, Brooklyn, has been regularly and consistently honored by the master plumbers of the City of Churches since accepting the position which he so peculiarly graces, some three or four years ago. When the late Building Superintendent, John Thatcher, was looking for an assistant who possessed the unusual qualifications requisite in a man to assist him in his department his search lead him in Mr. Kennedy's direction. Mr. Kennedy had therefore been Deputy Sewer Commissioner under a previous borough administration, and his services were uniformly praiseworthy. Mr. Thatcher made no mistake. We all know that the duties of an assistant building superintendent in a city of 1,750,000 of persons are arduous and varied. We all know, too, that a chief plumbing inspector also has a great many things to do, pleasant and unpleasant. Considering the troublous conditions with which his two offices have been beset, Mr. Kennedy has made more friends than any man previously occupying the position through his forceful, able and "on the level" tactics. He has been square and above board in all his dealings, and the craft of the Borough of Brooklyn has voted him one of its best and most efficient officials. When Superintendent P. J. Carlin took up the office upon the decease of his predecessor he was glad indeed to avail himself of the services of Mr. Kennedy, and retained him.

Mr. Kennedy's four-year term will have expired upon December 31, 1913. Whether or not he will be reappointed is something for the future to decide. Whether or not he would care to again burden himself with the numerous duties of his office is left for his personal decision. The opportunity seemed ripe for his friends in the Master Plumbers' Association of the Borough of Brooklyn, of which, by the way, he is vice-president, to express their appreciation of his invaluable services in the cause of improved sanitation. An open meeting, elsewhere reported in this edition, was held on April 30, 1913, at the Jefferson building, Brooklyn, N. Y.

During the proceedings an address was made by Commissioner Pounds of the Highway Department. He felicitated the association upon having the services in its directorate of the astute, popular and progressive Matthew. When the honorable Commissioner had finished his address President D. J. Donovan, upon behalf of his associates presented Mr. Kennedy with a 3½-carat diamond ring, pure white, as well as a case of Gorham silver, consisting of 247 pieces. The presentation of these tokens of love, admiration and appreciation was the occasion for a riotous outburst upon the part of the 300 persons in attendance. As elsewhere stated Mr. Kennedy made an appropriate and feeling response.

As a committee J. J. Dixon and Executive Clerk Adolph Steiger, brought the silver to Mr. Kennedy's home, being received by his charming wife. Mrs. Kennedy expressed her grateful appreciation for the bounteous gift and stated that she would always prize the silver as one of her most precious holdings.

All of which points a moral. Those who

MATTHEW J. KENNEDY, VICE-PRESIDENT BROOKLYN MASTER PLUMBERS.

unselfishly and thoughtfully serve their fellows inevitably reap reward, not perhaps in dollars and cents, but in the real worthy appreciation of their confreres, beyond which there is no more valuable prize on this earth.

The committee of selection embraced the names of P. H. Gleason, John W. Sands, J. J. Dixon, James Jarcho and D. J. Donovan.

An All-Round Inspector.

CLARENCE J. FICHTHORN, the newly appointed assistant plumbing inspector of Reading, Pa., is the son of Mr. and Mrs. Jacob W. Fichthorn, 220 S. 13th St., and is 25 years old. Mr. Fichthorn is a practical plumber and worked for six years for Harry T. Rowe. The new assistant inspector is a well-known basketball player and was a member of the Reading basketball team for several years. He is popularly known as Litter in the cage, and played six games with the Reading champions at the opening of this season. He is a member of the Beta Sigma Society.

Texas State Association Meet at San Antonio.

THE Master Plumbers' Association of the State of Texas convened at 9 o'clock on the morning of April 24 at the Menger Hotel for a three days' session. When State President W. E. Thatcher, of Fort Worth, called the meeting to order more than 150 members, representing nearly every city in Texas, had registered.

In the absence of the Mayor, President Thatcher called on City Attorney Joseph Ryan who, in a speech dwelling on the life of a plumber and incidentally mentioning that if he had to choose another career he would learn that of a plumber, the City Attorney welcomed the master plumbers to the Alamo City and bade them consider the keys of the city turned over to them. Responses were made by President Thatcher and Dan Sullivan, of Dallas. Mr. Ryan, who is an honorary member of the association, made some jokes at Mr. Sullivan's expense, but Mr. Sullivan ably defended himself with jests at Mr. Ryan.

The exchange was enjoyed by the plumbers, and when they were over the convention soon got down to the real business on hand. Committees were appointed to handle the various routine matters that came up during the convention. Adjournment was taken at noon until 2 o'clock.

President Thatcher's report was the main feature of the afternoon session. Mr. Thatcher's report was quite lengthy and dealt for the most part on the growth of the organization and the best methods to perfect organization in the smaller cities.

He commented on the appeal for assistance sent out by the National Association of Master Plumbers for the members who are sufferers from the Dayton flood, and asked that all assistance possible be given them. He declared the appeal was for a praiseworthy cause and too much aid could not be given.

The State Association was never in a better financial condition than it is at present, according to the report of the State secretary, J. O. Montrief. Thirty-four new members have been received into the association since the last annual meeting. Only three members have dropped out of the association the past year.

"They are no longer members for the simple reason that they have quit the business," commented Mr. Montrief.

The following committees were appointed by President Thatcher:

Auditing committee—Adolph Deutz, Laredo; J. C. Kinney, San Antonio; George E. Robinson, Galveston.

Credentials committee—Porter Kiethly, Houston; P. J. Sheehan, Dallas; Fred Robbins, Fort Worth.

Sergeant-at-Arms—A. Collman, San Antonio.

It was announced that several other committees remained to be named, but that the need for these was not so pressing as for the credentials and auditing committees, and that they would be appointed later.

Joseph Netzer, of Laredo, moved that a committee on publicity be named. "There are no secrets about our conventions," said Mr. Netzer, "and we want the newspapers to handle the whole proceedings."

President Thatcher named Mr. Netzer as chairman of the publicity committee, and W. G. Schuwirth and R. G. Thomas to assist him.

The following delegates and their families were registered at the convention:

Mrs. Maud Graul, Dallas; Joseph Netzer, Laredo; Mrs. A. V. Hall, Dallas; A. T. Hall, Dallas; J. O. Montrief, Fort Worth; Chris Waltz, Denison; J. P. Keithly, Houston; Mrs. J. P. Kiethly, Houston; Mr. and Mrs. T. L. Pearson, Fort Worth; A. Deutz, Laredo; J. A. Barry, R. E. McDonald, C. A. Newberry, M. Callahan, W. M. Warren, W. F. Payne, Joseph Harner, Mark Evans, Mr. and Mrs. G. E. Allgarez and J. A. Stephen, Fort Worth; Mr. and Mrs. R. C. Malitz, Mrs. F. P. Martin, Mr. and Mrs. G. E. Robinson, Freddie and Arthur Robinson and W. H. Schultz, Galveston; H. W. Greenway, J. V. Garretson and F. H. Brush, Fort Worth; J. A. Edwards, Houston; G. E. Aldridge, Fort Worth; J. F. Madden, Sherman; Mr and Mrs. F. B. Ruttledge and Miss L. Pecan, Del Rio; Fred Robbins, G. H. Kinshaw, J. M George, Mrs. George and Artie George, Fort Worth; E. J. Vance, Mr. and Mrs. S. J. Flood, Mr. and Mrs. J. H. Wooley and E. S. Davis, Corsicana; C. J. Browning, Mrs. C. J. Browning and Miss Ella Browning, Fort Worth; Mr. and Mrs. F. Peit and Mrs. Dan Sullivan, Dallas; E. T. Vossler, A. E. Vossler, Mr. and Mrs. W. B. Smith and W. E. Thatcher, Fort Worth; B. D. Hooges, Hubbard; P. P. Runnels and Mr. and Mrs. A. L. Gilliland, Navasota; P. E. Fosdick and G. W. Geiber, Fort Worth; P. J. Sheehan, Dallas; Mr. and Mrs. W. P. Harrison, Fort Worth; J. S. Burgis, Houston; D. T. Sullivan, Dallas; J. A. Edwards, Houston; A. L. Mitchell, Dallas; Mr. and Mrs. G. H. Oberhoff and Miss I. Oberhoff, Fort Worth; D. J. Mueller, Dallas; H. B. White, Tyler; Bruni Patterson and J. H. Patterson, Temple; Mrs. C. J. Garretson, Fort Worth; C. G. Fundinger, New York; Charles Bammel, Houston; J. H. Inman, New Orleans; Mr and Mrs. T. J. Fennison, Dallas; Mr. and Mrs. John McNeely, Houston; Gus Dreiling, New Orleans; Mr. and Mrs. Jack Hahn, Pearl Bailey and George Cannon, Houston; Mr. and Mrs. E. C. Wosnig, Waco; W. C. Franks and Miss Annie Franks, Gonzales; Halton Smith, Houston; Mr. and Mrs. N. S. Hill, Waco; Mr. and Mrs. Charles Glenck, Fort Worth; Mr. and Mrs. I. W. Thiele, H. H. Fisher and F. S. Putnam, Houston.

Adjournment was taken at 3.30 o'clock until 9 o'clock Friday morning.

Friday, the second day, was one of work and much business of a routine character was disposed of. President Thatcher in the morning appointed a special committee, composed of Porter Kiethly, Houston; Joe Netzer, Laredo, and George Robinson, Galveston, to work in conjunction with the varius committees and aid them as much as possible.

Shortly after the convention opened J. A. Mason, of the Eclipse Paint & Mfg. Co., Cleveland, O., delivered a plain talk on co-operation between the plumbers.

W. J. Edgecombe, secretary of the Retail Merchants' Association, addressed the convention on the subject of "Credits." Mr. Edgecombe was emphatic in the fact that if a business man did not watch his credits his business would eventually go to the wall. Adjournment of the morning session was taken at 10.45 o'clock.

The committee on resolutions reported favorably on the letter of President Frank J. Fee of the National Association of Master Plumbers at the afternoon session asking that aid be given to suffering members of the Dayton flood. By an unanimous vote the convention decided to send a check for $50 to Dayton.

That plumbers receive their contracts directly from the owner and not from a general contractor and that a general line of divergement be drawn between the plumbers and general contractors, was the resolution adopted at the afternoon session. As it is at present, work on a building under construction is let to a general contractor, who sublets the contract for plumbing, wiring, etc. This is the point the plumbers wish to eliminate. They want the contract directly. The resolution as adopted has been in force in New York for some time and those favoring it pointed out the benefits to be derived.

The following are the bills favorably reported by the committee on resolutions and adopted by the convention,

"By the Associated Master Plumbers of Texas, in convention assembled at San Antonio, Tex., That we unanimously indorse House bill No. 658, introduced by the Hon. B. Schwegmann on Feb. 25, and favorably reported by the Committee on Public Health, March 7, 1913, and the following reasons were also approved and adopted. The people generally who desire to have plumbing done have no well-matured idea or even thought with reference to proper methods of plumbing to promote health and security from the vile effects of typhoid fever and other disease-breeding germs, and usually contracts with the plumber to put in the plant who will do the work the cheapest, leaving everything to the plumber, and this bill provides that such plumbers shall not impose upon the people by putting in unsanitary plants, and does not prohibit anyone from doing the work, but only provides the way the work shall be done to protect the people from contracting disease, which no doubt often occurs on account of inferior and imperfect plumbing.

"That we unanimously indorse House bill No. 660, introduced by Hon. B. Schwegmann on Feb. 25, and favorably reported by the Committee on Public Buildings and Grounds March 15, 1913, and with the

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Manufacturers of all kinds of

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EVERY "NACO" BOILER SOLD

Means a Satisfied Customer

"NACO" Boilers are Sold at the Same Prices as Charged for Others

To Architects and Plumbers Everywhere

The *Jobbers* of Plumbing Goods of the United States desired a *Standard* of Weights and Capacities of "Galvanized Range Boilers." The National Committee of the Confederated Supply Association thereupon appointed a committee on Standards. This committee compiled a standard for Range Boilers. The Standard stipulates that all Galvanized Range Boilers must be stamped with their actual capacity, and the materials used in the boilers must be of a specified thickness. On all such boilers the "Naco" label may be used.

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following reasons why the bill should pass: The bill does not provide that such contract must be entered into with any particular person or firm, but its sole purpose is to prevent 'rakeoffs' on contracts for the State for the things above enumerated by compelling the party making the contract for the State to deal directly with the material man and under a separate contract, thereby getting the best material and work that may be obtained for the amount involved. It is the opinion of the Committee on Public Buildings and Grounds that if House bill No. 660 is enacted into law it will result in a great saving for the State and at the same time the best materials obtainable will be secured for the work.

"We hereby pledge ourselves, individually and collectively, to use every honorable means within our power to induce Gov. O. B. Colkuitt to submit House bills Nos. 658 and 660 to the special session of the Legislature for consideration, and that all our members plead with their respective legislators for favorable consideration."

The third and last day of the convention opened up with a heated debate, lasting nearly an hour and characterized as the warmest ever witnessed at a convention of the order in Texas, after which the convention, by a vote of 53 to 9, decided that as an organized body it would lodge with President Woodrow Wilson and the Representatives of Texas in both branches of Congress a protest against the bill which seeks to prevent the use of public funds to prosecute labor organizations for alleged violation of the Sherman act in restraint of trade.

Action of the Texas association was predicated on a telegram received from George S. Boudinot, secretary of the National Association of Manufacturers. Joseph Netzer, of Laredo, led the fight to have a protest lodged where he believed it would be effective and G. E. Allgiaer, of Fort Worth, essayed the movement which brought on heated words. In the end, however, the association acted favorably on the telegram of Mr. Boudinot.

TEXT OF THE TELEGRAM.

The message which precipitated the dispute was as follows:

Sundry civil bill, with restrictions, preventing the use of public funds for the prosecution of labor organizations violating the Sherman act, has been passed by the House of Representatives It is of the utmost importance that you immediately telegraph your senators and especially the president, stating concisely and vigorously your protests against forbidding the use of the public money to punish violators of law by any class. We ask you on this important occasion not only to act for your association ,but to secure like action from others, especially from individual members of your association.

Mr. Netzer contended that the public fund ought to be available to punish any violator of the Sherman act, be he employer or laborer, while Mr. Allgiaer took the stand that no one could tell when a member, now an employer, might become an employe and a member of a union. He said that he did not want to see the organization playing into the hands of enemies of organized labor and that the telegram sought merely to manufacture sentiment oppressive to the workingman. On [illegible]e, he and those with him were defeated.

A resolution was introduced that the association engage an organizer, whose duties should consist in traveling in Texas and getting master plumbers to join the association. The resolution fixed the organizer's pay at $175 per month and $5 per day expenses. It was signed by R. E. McDonald, P. J. Sheehan, F. W. Thiel and A. E. Hancock.

After much discussion, the resolution was passed as read, there not being a single dissenting vote. It was announced that Fred Robbins, of Fort Worth, would be named by the executive committee, which will have charge of this department.

W. E. Thatcher, of Fort Worth, president of the association, was elected to succeed himself, his opponents in the race being George S. Robinson, of Galveston, and Joseph Netzer, of Laredo. Mr. Robinson was elected vice-president, and N. S. Hill, treasurer (re-elected). William G. Schuwirth, of San Antonio, and Joseph Netzer, of Laredo, were named as executive committeemen, and these two, with Vice-President Robinson, will direct the destinies of the association for the next year.

At the afternoon session 16 delegates to the National Convention of the Master Plumbers' Association, to be held in Philadelphia, June 17, 18 and 19, were elected after spirited balloting. The delegates follow: N. S. Hill, George Robinson, W. C. Schuwirth, Joseph Netzer, Porter Kiethly, P. J. Sheehan, J. F. Madden, J. O. Moncrief, R. E. McDonald, Ed Braden, A. Fraser, J. C. Kinney, A. L. Mitchell, John McNeely, Fred Robbins and Walter Shafer. Alternates: J. W. Thiel, H. W. Warren, P. E. Fosdick, J. A. Berry, W. B. Smith, J. H. Wolley, W. E. Payne, Mrs. Maud Graul, C. J. Garritson, Adolph Deutz, R. C. Malitz, F. L. Putnam, Joe Fisher, B. D. Hodges, J. Camp.

Dallas was chosen as the next place of meeting.

Notes.

Mrs. R. G. Thomas, chairman of the committee on entertainment for the ladies, who accompanied the delegates, prepared a special program and on the afternoon of the 24th they were guests at the Royal Theatre. In the evening the delegates and their wives were guests at the Plaza Theater.

Friday's entertainment for the wives of the delegates consisted of a trolley ride in the morning, and the delegates viewed the Battle of Flowers from a specially constructed stand at the north side of the Plaza Theater.

An incident not on the program occurred at the dinner hour. Ed Davis, a delegate from Dallas, was enjoying his dinner in a very quiet and peaceful manner when a policeman placed him under arrest on a charge of using loud and boisterous language in a public place. Mr. Davis protested vigorously, but was forced to submit. Dan Sullivan, of Dallas, endeavored to bribe the officer, but was threatened with arrest. It was only after Mr. Davis had been led several blocks, not in the direction of the police station, that he was told the arrest was a "frame up" and that he would have to buy. Mr. Davis took it good naturedly "bought" and wiped out the penalty.

Neat gold badges, bearing the emblem of the master plumbers, a pair of hands holding a melting pot, and upon the round disk composing the lower part of the badge is the picture of the Texas cactus, with the words, "Don't Step on Us," was distributed to each delegate upon his arrival.

A special feature of the entertainment was the coupon books, books containing tickets entitling the holder thereof to a free trolley ride, a free ride to the hotel, a pass to the shows at the Plaza and the Royal, reserved seats at the Battle of Flowers, tickets to a ball and tickets to a banquet, etc. These coupon books were distributed to each delegate.

The local committees named by Chairman Schuwirth to look after the visitors were composed as follows:

General arrangements—J. C. Kinney, Walter Shafer and J. H. Lieber.

Entertainment—R. G. Thomas, A. Collman and J. C. Kinney.

Badges and reviewing stand—E. Gutzeit and A. S. Ellsworth.

Convention hall—A. Collman.

Coupons—R. G. Thomas.

Decorations and signs—F. Lightfoot.

Trades display float—J. H. Lieber and F. Lightfoot.

Question box—Ed Braden.

On Saturday evening a banquet was enjoyed at the Menger Hotel, this being the closing feature of the convention. At this function Mrs. Maud Groll, the only woman master plumber in Texas, was a guest of distinction. She is from Denison and participated in all the affairs of the association that were brought up at the meeting.

Radiators Were Dummies.

EVEN the most experienced room hunters occasionally find a surprise awaiting them. A woman who thought she knew every phase of the game recently found herself confronted with a new one.

In answer to an alluring advertisement she found what looked like a comfortable room. It had the advantage of being located in a good neighborhood, and therefore the price was not low.

Her belongings were sent over and later in the day she arrived to put them in order. After removing her wraps she felt cold, and began to look about for heat; but, much to her surprise, found there was none, although the house from bottom to top was fitted up with gorgeous gilt radiators.

Putting her hand on one of these supposed heat dispensers, she discovered it was cold. She began to investigate, and found it was not even attached to a steam pipe. When the maid was questioned, she said the landlady had put them in to make the house look warm.

The new roomer remembered she had a hot-water bag and thought she would utilize that as a means of heat, but again she was foiled. There was no hot water. Some one had taken a bath, and it had been used up. If she could wait a few hours there would be some, she was told. At the end of the week she found herself looking for a new place.

LAWLER'S AUTOMATIC CELLAR DRAINER

It is the best in the world, for the reason that it does not waste water. It has no equal at any price, yet its price is low, compared with makeshifts.

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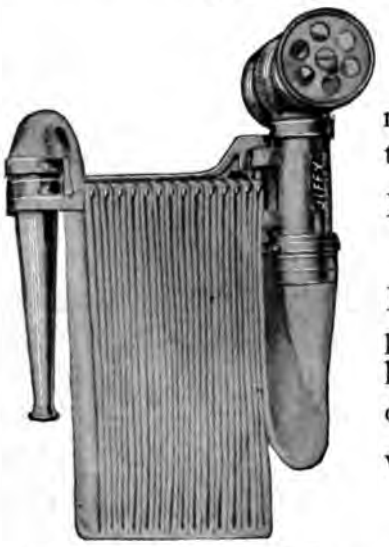

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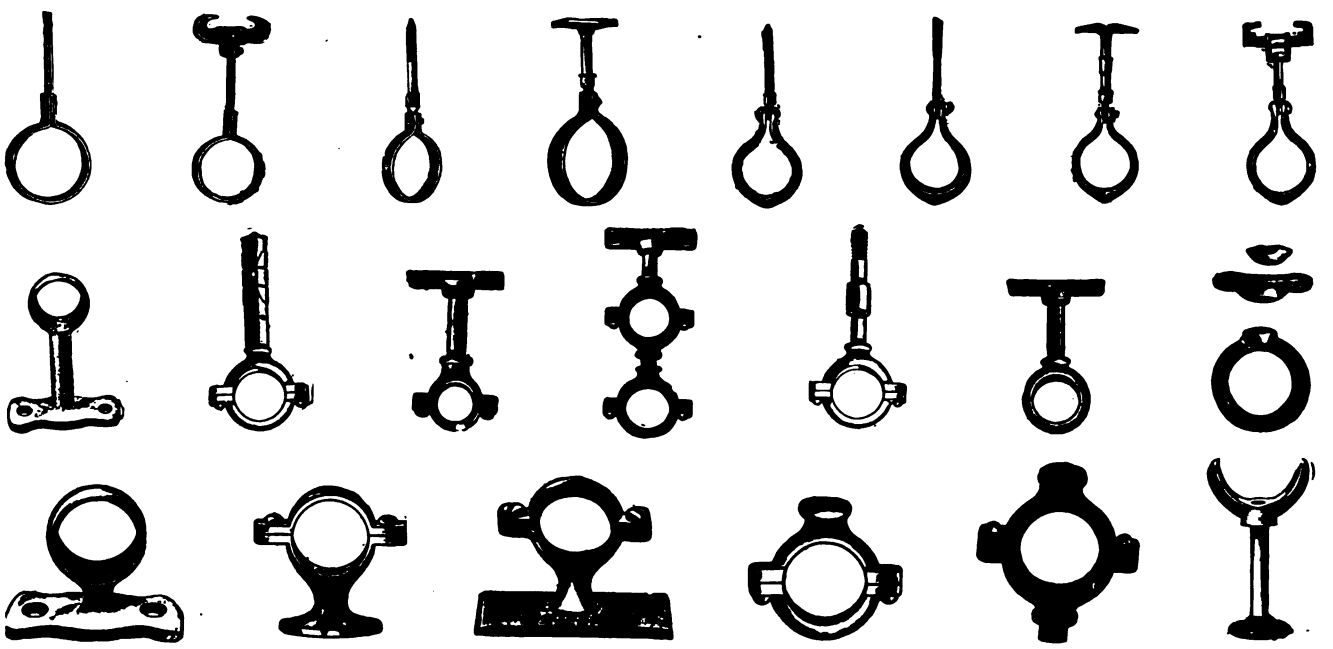


Official Announcement of the National Convention.

NEW YORK, N. Y., May 6, 1913.

To Officers and Members of Affiliated Associations of National Association of Master Plumbers:

GENTLEMEN—Though you have already been informed of the place and date of our national convention, I beg to remind you that the 31st annual convention of the National Association of Master Plumbers will be held in Philadelphia, Pa., on June 17, 18 and 19, 1913.

The Bellevue-Stratford Hotel has been selected as National Association headquarters during the convention. The rates at the various hotels are as follows:

HOTELS AND RATES.

The Bellevue-Stratford—Single rooms without bath, $2.50, $3 and $4 (additional charge of $1 for each extra person in room); single rooms with bath, $3.50 to $5 (additional charge of $1 for each extra person in room); large room and bath, with outlook, $6 to $8; room with twin beds and bath, $4.50 to $6; extra size room, twin beds, bath, $7 to $10.

The New Bingham—Single rooms without bath, $1.50 per day and up (two persons occupying one room, $1 per day each); single rooms with bath, $2.50 per day and up (two persons occupying one room, $2 per day each).

Hotel Walton—Single rooms without bath, one person, $2 per day and up; or with bath, $2.50 and up. Double rooms, without bath, two persons, $3 and up; or with bath, $4 and up.

The Continental—One person, without bath, per day, $1.50; two persons, without bath, $2.50; one person, with bath, $2; two persons, with bath, $3.50 and up.

The Windsor Hotel—$1 to $2 per day single, without bath; $2 to $3 single, with bath; $2 to $3 double, without bath; $3 to $4 double, with bath.

The New Hotel Hanover—Single rooms, without bath, $1 and $1.50; double rooms, without bath, $2 and $2.50; single rooms, with bath, $1.50 to $2.50; double rooms, with bath, $2.50 to $5.

The Little Hotel Wilmont—Rates to the members of your association will be $1, $1.50 and $2 per day.

The Colonade Hotel—Single room, one person, $1.50 and $2 per day; single room, with private bath, $2.50 and $3; double rooms, two persons, $3 and $4; double rooms, private bath attached, $4 and $5.

George F. Uber, 13th St. and Fairmount Ave., Philadelphia, chairman of the committee on convention, will be glad to furnish you with any further details regarding hotels.

The sessions of the convention will be held in the million-dollar ballroom of the Bellevue-Stratford Hotel.

RAILROAD RATES.

I have made application to the various passenger associations for reduced rates on account of our convention. Some of the replies have been favorable, and I am awaiting favorable replies from others.

CREDENTIALS.

Enclosed find credential blank for the names of your delegates to our Philadelphia convention. Please fill in the blank and return to the national office as early as possible. Kindly note instructions on back of the credential blank. It is very important that you comply with these requirements.

NUMBER OF DELEGATES.

A local association is entitled to one delegate for each 10 members, or fractional part thereof, in good standing the last half of the association term. In addition to this, the local president is a delegate by virtue of his office. National State vice-presidents, members of national standing committees, national past presidents, as well as members of the board of directors, are delegates ex-officio. In addition to the foregoing, State associations are entitled to the president of the State association and two delegates elected at the State convention.

For further particulars regarding election of delegates see articles 5 and 23 of the national by-laws.

Each local and State association is urged to send delegates.

MEMBERS-AT-LARGE.

Any member in good standing who is not a delegate is invited to attend the convention and will be provided with a badge, card of admission and a seat in the convention hall, and in every way he will be honored as a delegate, with the exception that he will not be entitled to a vote.

Fraternally yours,

FRANK J. FEE, President.

CHARLES MURPHY, Secretary.

Canadian Institute of Sanitary Engineers Organized.

WITH the object of forming a society and adopting a uniform by-law for western Canada, a convention was opened at Winnipeg, Man., on the morning of April 16 at the Industrial Bureau of Plumbing Inspectors and Sanitary Engineers. The convention was thoroughly representative of the west, delegates being present from practically all cities from Fort William to Vancouver. In addition to the formation of a society, drawing up of by-laws and constitution, and consideration of the uniformity matter, numerous papers on trade subjects were read and discussed, and it is believed that the convention will have beneficial results from an educational standpoint for all concerned.

James Smith, Winnipeg, was elected chairman of the convention, and W. Macfarlane, Winnipeg, secretary.

On the motion of J. R. Huntbach, Edmonton, seconded by R. J. Swain, St. Boniface, it was unanimously decided that a society of plumbing and sanitary engineers be formed for western Canada.

Messrs. Fletcher, Calgary; Huntbach, Edmonton, and Thomson, Winnipeg, were appointed to consider the name of the society, draft constitution and by-laws, and report.

Messrs. Swain and Taylor, Saskatoon, and Jones, Moose Jaw, were appointed the credential committee.

Among the delegates attending were the following:

Calgary—Charles E. Good, A. L. Milligan, E. P. Fletcher.

Edmonton—J. E. Huntbach, H. Ochampaugh, Harry Nash, William Carse.

Fort William—W. Brayley, S. Macnamara.

Moose Jaw—A. F. Higgins, Herman H. Mintz, H. Jorge, W. G. Jones, T. P. Baylis.

Port Arthur—A. J. Peckett, James Sterling.

Prince Albert—Fred Read, A. G. Warr.

Regina—Thomas Watson, J. A. Bertwistle, H. D. Mathias, James Adam, Thomas Newis.

St. Boniface—C. D. Kirk, R. J. Swain, William Fairley.

Sarnia—W. C. Heinrich.

Saskatoon—George G. Taylor, Robert Heffelfinger, Edgar Knechtel.

Swift Current—E. G. Southon.

Vancouver, B. C.—J. G. Morgan.

Winnipeg—H. E. Plaxton, James Mackie, John Wooding, S. S. Kennedy, Frank Simmons, William H. Rose, J. E. L. Homer, C. E. Chown, C. L. Robb, L. W. White, H. M. Agnew, W. J. Brick, J. Smith, Walter C. Flavin, John McNeil, William Todd, R. J. Thomas, J. G. M. Fraser, D. Phillip, John Muter, J. Kenney, William Toole, E. Samson, William McFarlane, F. Mount, George Wharton, S. W. Harris.

In reply to Mr. Agnew, the chairman said it was not the intention to limit the membership of the society unduly.

Chairman Smith then addressed the convention as follows:

The self-imposed task of compiling a uniform plumbing by-law for western Canada is one of considerable magnitude, the extent of which few of us realize, but we have put our shoulder to the wheel and from present indications there will be no looking back till it has been accomplished. If the best results are to accrue from our deliberations it will be necessary for us all to practise charity and self-restraint in speech when considering legislation applicable to so wide a field with its varied conditions as is represented here.

There are few crafts or sciences that have made as much and none that have made greater progress

than sanitary science in the past 10 years, and the plumbing craft has been in the forefront of that progressive movement. Plumbing work done 10 years ago bears about the same relationship to the handicraft of to-day as a farm wagon does to a limousine. " Education and more education" should, therefore, be our motto, and not only education for ourselves, but education of the public up to our ideals. It is therefore essential that we be ready and willing not only to explain clearly and demonstrate irrefutably how a system is installed in a certain manner, but why it is done so. By so doing we will make by-laws such as we have under consideration comprehensible to the average person, and in time so popular as to meet with the ready approval of the people we are endeavoring to protect. A by-law made in the interest of the manufacturers, plumbers or journeymen is indefensible.

The tendency in recent years in medical and other professions has been to put prevention before the cure, and this old adage, "Prevention is better than cure," is none the less applicable to the progress in sanitary science. Sanitary plumbing is preventing medicine in its fullest sense.

Another tendency of recent times is the demand, and rightly so, for simplified plumbing, and I have always found that simplicity and efficiency in plumbing, as in most things, bear a close affinity, provided that in the simplifying process an assured margin of safety has been provided.

The economic aspect which the adoption of a uniform plumbing by-law presents is far reaching and almost incomprehensible in its effects. It would enable the manufacturer to concentrate his energies and reduce the cost of production, and would encourage active competition; it would enable the supply houses throughout our western country to carry a larger standard stock; it would enable the master plumber to secure material more readily, and would insure the journeyman plumber more continuous employment, and thus at every stage waste and delay would be minimized. We have therefore a compounded economy which would undoubtedly be reflected in the amount of the bill presented to the men at the other end of the line—the citizen at large.

Let us therefore bend our efforts toward the formulating of a uniform plumbing by-law that will simplify construction and standardize materials, and when we have accomplished that we will have made a forward movement toward progress, efficiency and economy.

Mayor Deacon presided at a luncheon which followed, and was supported by Alderman J. J. Wallace.

In formally welcoming the delegates to the city, the Mayor expressed the hope that the convention would be successful. The adoption of a uniform system of plumbing he thought very desirable, and if the convention adopted that it would be doing the whole of western Canada a valuable service. In many places the regulations were crude and unsatisfactory and really detrimental to the general business of the country, and there was no line in which it was more essential that there should be uniformity than plumbing and engineering.

Alderman Wallace also hoped the convention would be successful in every respect.

The Thursday morning session was devoted to the reading of a paper on "Drains, Soil Pipes and Main Waste Pipes," by Geo. G. Taylor, of Saskatoon.

At the afternoon session a paper by J. McNeill, on "Fixture Traps," and on "Vent Pipes," by E. Samson, both of Winnipeg, and a blackboard demonstration on "Improved Methods of Venting and Simplified Plumbing," by J. G. Morgan, of Vancouver, proved both interesting and instructive.

At the morning session on Friday a message of good wishes from Thos. J. Claffy, president of the American Society of Plumbing Inspectors and Sanitary Engineers, and an address by Harry de Joannis, chairman of the committee on research, were read to the meeting, and it was decided that the same be received and recorded in the minutes and the best thanks of the society extended to the two gentlemen for their good wishes.

On the recommendation of the committee it was decided that the name of the society be called the Canadian Institute of Sanitary Engineers.

The following officers were elected to serve the ensuing year:

President, James Smith, Winnipeg; first vice-president, E. P. Fletcher, Calgary, Alta.; second vice-president, J. G. Morgan, Vancouver, B. C.; third vice-president, G. G. Taylor, Saskatoon, Sask.; fourth vice-president, A. J. Peckett, Port Arthur, Ont.; secretary-treasurer, Wm. McFarlane, Winnipeg, Man.

The next convention will be held at Edmonton.

New Legislative Buildings for Winnipeg, Man.

THE specifications for the new legislative buildings for the Province of Manitoba, Canada, have now been completed and submitted to the government. Their final approval, however, depends upon the report of V. W. Horwood, provincial architect, who is in the east just now making investigations regarding a new system of heating public buildings. It will be some weeks, therefore, before the government will issue calls for tenders.

SHOWERS

LEHNERT & COMPANY
313 East 22d Street, NEW YORK

Have you had trouble with check valves—hot water circulating into cold? If so, use our figure 108 on your next job of four-valve showers. This is our leader.

McLoughlin & Donovan,

Wrought and Cast Iron Pipe and Boiler Tubes.
Brass and Iron Valves, Etc.

Plumbers, Gas and Steam Fitters' Supplies.

Pipe Cutting to Sketch.

47 Cliff Street New York

Engineers' Supplies a Specialty.

Greater New York News.

HANSON & SCHICKEL, of 712 Madison Ave., Manhattan, will do the plumbing in the new dispensary to be erected at 34-36 Spring St.

A new six-story warehouse will be erected at 60 Cliff St., Manhattan. The plumbing contract has been awarded to T. J. Cummins, of 1035 Third Ave., and the heating system will be installed by John Boyd, of 284 Columbus Ave.

Charles Catania, a prominent Manhattan plumbing contractor, has removed from 2282 First Ave. to 357 E. 116th St.

David Hanigan, of 209 W. 96th St., Manhattan, has the contract for the plumbing work in the new rectory and addition to the present church at 187th St. and Broadway.

The contract for the plumbing work in the loft building at 329-335 W. 30th St., Manhattan, has been let to W. D. Drexler, of 282 E. Broadway.

Joseph Theiss, of 159th St. and Third Ave., is a busy Bronx master plumber. Among his present contracts are the plumbing work in the two new apartment buildings on the northeast corner of Mission Ave. and 175th St. and the plumbing in the new five-story apartment house on Aqueduct Ave., near Brandt Pl.

Sharp & Gunn, of 528 W. 145th St., are doing the plumbing in the new $100,000 apartment building to be located on the southeast corner of Fort Washington Ave. and 180th St.

Chas. O. P. Barker has moved his plumbing business from 327 Cumberland St., Brooklyn, to more spacious quarters at 419 Adelphi St.

The plumbing contract for the new residence of Chas. E. Niles, on 246th St., near Waldo Ave., Manhattan, has been let to Louis Frisse, of 669 Bushwick Ave., Brooklyn.

April Examination of the New York Examining Board of Plumbers.

AT the April examination of the applicants for a license to do plumbing work in New York City the following questions and plan were submitted by the examining board at its rooms, 149 Church St.:

1. Where a hot-air pumping engine is used to lift water to a house tank and a ball cock is placed on the pump pipe on tank, and ball cock regulated so as to fill tank with water below level of overflow, what precaution should be taken?

2. Where there is a shower bath with receptor in a house and the family decided not to use the shower bath for a long time, and yet did not want any of the pipes disconnected, what would you recommend doing?

3. If called upon to fit up a sink in the cellar of a house where the cast-iron house drain is above the cellar floor and low enough for connection to be made for waste pipe of sink, and no branch fitting is on house drain where sink is located, how would you make the waste pipe connection for sink and what fittings would you use?

4. In a private house where a hot-air or electric pumping engine had been installed in cellar to lift water to a house tank on the roof of the building, the house tank to supply water to plumbing fixtures on and above second floor, plumbing fixtures in basement and first floor to be supplied from street pressure (and not from tank pressure), and when pump was in operation, water could not be drawn at any of the plumbing fixtures in basement or first floor, how would you arrange the piping so that water could be drawn at the plumbing fixtures in basement and first floor, whether pump was in operation or not, and not to supply these fixtures from tank pressure?

5. Is there any reason why wooden washtubs should not be installed in dwelling or apartment houses? State reasons.

6. What trap (other than main trap, leader, yard or area drain traps) is sometimes located in the cellar of buildings which does not need a branch vent pipe?

7. What materials are used for filtering water in large filters?

8. In running long vertical lines of galvanized or brass hot-water pipes with branch pipes on each floor, how would you take care of the expansion and contraction of the pipe?

9. What is the difference between a common overflow wash-basin and a patent overflow wash-basin?

10. How would you make the smoke test of a drainage system?

11. What is a set of reverse cocks, and what are they used for?

12. How would you connect water pipes for a gas hot-water heater with a kitchen hot-water boiler where boiler is also connected to water back in kitchen range?

13. Where should a hot-water circulation pipe begin and end?

14. What is the use of a hot-water circulation pipe?

15. How is the necessary size of house sewer and house drain determined?

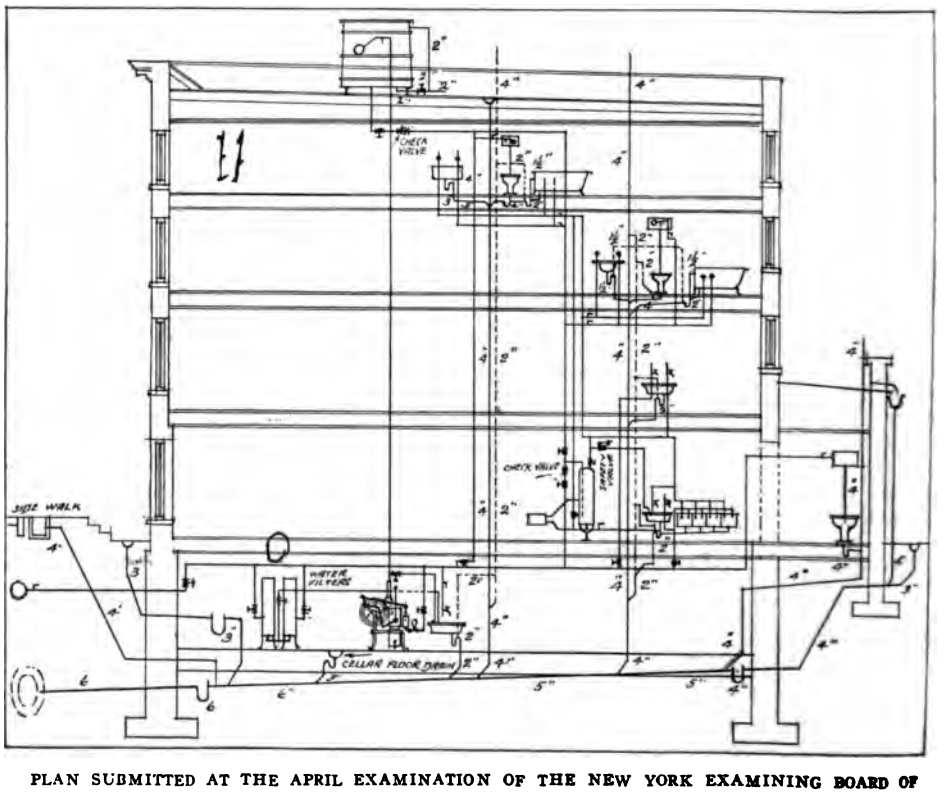
16. Why is it necessary to increase a two-inch or three-inch vent pipe at the roof?

17. Where a galvanized wrought-iron pipe is extended through roof, how would you make the connection between pipe and roof tight?

18. What is a fresh-air inlet valve and where should same be placed?

19. Where a hose cock is placed outside of front of building for washing area or sidewalk, how would you arrange piping and cocks to avoid same from freezing in cold weather?

20. Where a water-closet is located in the center of a house, not near a window, how would you comply with the requirements of the Plumbing Bureau of the Department of Buildings in regard to ventilation?



PLAN SUBMITTED AT THE APRIL EXAMINATION OF THE NEW YORK EXAMINING BOARD OF PLUMBERS.

Chief Plan Examiner John A. Hamm, of Brooklyn, N. Y., Dead.

JOHN A. HAMM, chief plan examiner of the Brooklyn Bureau of Buildings, died shortly after noon Saturday, April 3, in the Holy Family Hospital, where he had been confined since Tuesday. Mr. Hamm, who had been connected with the Building Bureau since 1899, had been in ill health for some time. He did not consider his illness serious until Monday of that week, when he was stricken down while at his desk in Borough Hall.

He left the office at noon and was taken to Holy Family Hospital during the evening. The following day he was operated upon for ulcer of the stomach. Medical and surgical aid, however, came too late.

He was 42 years old and is survived by a widow and one child. He lived at 1250 46th St., Borough Park. He was a veteran of the Spanish-American War, having served in Company B, 71st Regiment, New York Volunteers. He became associated with the Building Department as an inspector in October of 1889, and worked his way up to his present position. He was a valuable and trusted employe in the department, and took the responsibility in much of the intricate work that went through the Bureau.

Superintendent Patrick J. Carlin, of the Brooklyn Building Bureau, called the men of the office together Monday, April 5, and held memorial services for the late chief plan examiner.

After eulogizing Mr. Hamm, Superintendent Carlin appointed Chief Inspector M. J. Kennedy, John C. Schnackenberg and Chief Clerk W. W. Richards a committee to draft suitable resolutions of condolence and send them to the family.

The employes of the Building Department attended funeral services in St. Francis de Chantal Roman Catholic Church on Tuesday in a body.

Central Foundry Employes' Ball Team.

THE office employes of the Central Foundry Co., 90 West St., New York City, have established a baseball team and are anxious to arrange games with other teams in the trade. They are fixing up a schedule and have a number of Saturday afternoons open. Communications should be addressed to B. A. Schutz.

Considering the fact that many other establishments in the trade have ball teams, we look forward to some exciting sport during the Summer months.

Brooklyn Elects Delegates to Philadelphia.

AT a regular meeting of the Brooklyn branch of the New York Master Plumbers' Association, held April 25, the following delegates and alternates were elected to attend the convention of the national association to be held at Philadelphia June 17, 18 and 19:

Delegates—Thomas E. O'Brien, John J. Dixon, Edward J. Belford, James T. Keenan, Patrick H. Gleason, Michael J. McGrath, George F. Tracy, Edward Macdonald, Michael F. Gleason, Wm. Eierman, John W. Sands, Matthew J. Kennedy, James Jarcho, Ignatius P. Byrne.

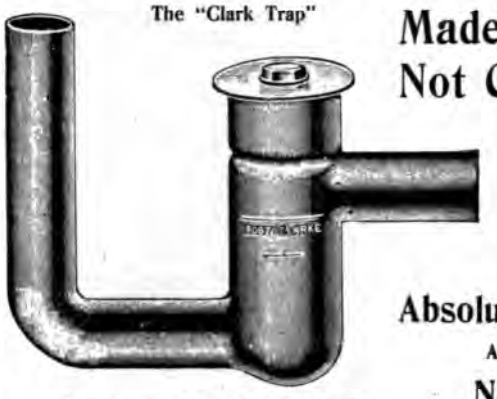
Alternates—Joseph F. Corcoran, John Gannon, Robert E. Dingman, Louis Frisse, Wm. A. Crane, Martin J. Hayden, Wm. A. Nugent, Harry Voletsky, Thomas Quinn, Louis P. Groerer, Thomas F. McEnaney, Louis Kayfetz, James Johnston, Lewis A. Deiser, Jr.

Enterprise of Prominent Manhattan Master Plumbers.

JARCHO BROS. during the past several years have been engaged upon contracts for the plumbing, heating and lighting of many imposing New York City structures. So that their prospective clients might see the character of buildings upon which their experts have finished successful plumbing installations, they have published an attractive book showing photographic reproductions of a series of high-grade building constructions. The booklet is tastefully gotten up, and commendation is due Jarcho Bros. for their spirit and enterprise, all of which serves to elevate and tone up the craft.

B. R. Hull, of Manhattan, Kans., is putting in a complete set of modern heating and plumbing equipment in W. S. Tobey's fine home at 5th and Pierre Sts. The bathroom fixtures are of the most modern type, and a new Torrid Zone furnace will insure safe, comfortable and economical heating for next Winter.

SAND HOLES? NEVER!!



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It's the Reliable
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Absolutely Non-Syphoning
Approved by all Boards of Health
No Other "Just as Good"

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Of Course You Want a Catalog. Shall We Send It?

Manufactured by ROBERT CLARKE
100 Schermerhorn Street, Brooklyn, N. Y.

GALVANIZED IRON COVERS
FOR
Laundry Tubs

Something New

Patent Applied For

The only all iron cover made, absolutely no part wood.

Strong, Durable and Attractive.

This cover makes the laundry tub perfectly sanitary.

Prompt shipments on regular sizes.

Regular Sizes: 21¾ in. x 4 ft. with 4 in. back strips. 24 in. x 4 ft. with 4 in. back strips.

Extra Sizes: made to order on short notice. Send for full information and prices.

GREASON MANUFACTURING CO.
108 West 99th Street, New York, N. Y.

New York Examining Board of Plumbers.

MAYOR GAYNOR is to be commended for his happy selection of master plumbers to serve upon the examining board for the ensuing year. The gentlemen now gracing the board are John J. Hannegan, New York; Fred. B. Robertson, Bayside, Queens; James Morrow, Albert De Roode, Rudolph P. Miller, superintendent of buildings, Manhattan, and E. J. Forte, chief engineer of the sewer department, Borough of Brooklyn.

John J. Hannegan has been prominently identified with plumbing affairs in Greater New York for a quarter of a century, during which time he has successfully handled imposing contracts. At present Mr. Hannegan is president of the New York City Master Plumbers' Association, Manhattan Branch. Until March he was secretary of the New York State Master Plumbers' Association, having then declined a re-election to this important post. With former President F. B. Lasette, Mr. Hannegan is credited with having placed the New York State organization in an extraordinarily healthy condition, considering the financial as well as the membership situation.

At all national conventions Mr. Hannegan is usually selected to serve upon important committees, and upon many occasions he has rendered distinguished services to his associates in the national society.

Fred. B. Robertson, Bayside, has been president upon numerous occasions of the New York City Master Plumbers' Association, Queens Branch, and, too, has been actively interested in national and State organization affairs for many years. Mr. Robertson conducts a progressive business in Queens, where for 15 years or more he has been favored with contracts in which the highest skill of the craftsman was required. Like Mr. Hannegan, his fellow master plumber upon the board, Mr. Robertson enjoys the respect and confidence of his confreres not only in the greater city but throughout the country.

To the other distinguished gentlemen upon the board, who excel in their respective lines and whose services in behalf of the citizens of the greater city have recommended them to His Honor the Mayor, Messrs. Hannegan and Robertson will bring the best qualities obtainable in master plumberdom, and their contribution surely will assist in having the board render to the city the high-grade service which is expected of it.

Plumbers Honor Loyal Brothers.

IN appreciation of their faithful services, Charles M. Whelen and Frederick P. Covert, former members of Local No. 236, Plumbers' Union, Trenton, N. J., were given a banquet recently in the union's room on N. Broad St. More than 200 plumbers were present and several labor leaders made addresses. Whelen and Covert were presented with handsome gold watch fobs bearing their initials and the inscription, "In honor of faithful service." Curtin was the caterer.

The presentation speech was by John E. Simons, president of the organization. John T. Fitzgerald, labor leader, made an address on local conditions. John J. Mallon, of Atlantic City, also made an address.

Whelen and Covert resigned from the union a short time ago, when they began business for themselves at 1126 S. Broad St., as stated in the columns of the MERCHANT PLUMBER AND FITTER some time ago.

An Old Texas Plumber Honored.

Editor MERCHANT PLUMBER AND FITTER:

THE following is in reply to the action of our local in making Mr. Bowman, the oldest plumber in San Antonio, who through misfortune has been forced to practically retire from active business, an honorary life member, and the expressions given below are so true that the undersigned cannot refrain from mailing a copy to all the trade papers, with a request that they be printed.

Respectfully,

ED. BRADEN.

SAN ANTONIO, Texas, April 2, 1913.

To the President and Members of the Local Association of Master Plumbers:

Kind friends and fellow craftsmen of days gone with the past,
The honor you've conferred on me, long as my life shall last,
Is one for which I thank you all in words that are sincere;
It links my thoughts to memories I ever will hold dear.

When'er in retrospect I view associations old,
This act I'll prize more highly than ever I valued gold;
It tells me though I've well nigh turned the book of life's last page,
That friendship's acts can luster give to somber days of age.

Just fancy if again I go my native land to see,
Appended to J. Bowman's name, F. A. S. A. M. P.,
I'd startle all those Britishers, they'd doff their hats I'll bet,
And take me for some champion of the modern suffragette.

But when I told them what it meant, imagine if you please,
How quick these blooming Englishmen would drop upon their knees,
And beg that I'd reveal to them by what means we inure
Our patron's home from maladies the doctors fail to cure.

I'd tell them how with honest pride out in the Golden West,
Their confreres strive unceasingly to find and give the best,
To stamp out human suffering, it's causes and effects;
Not clinging to o'd custom but improving their defects.

And in the foremost ranks of those the laurel wreath should crown
The plumber, for he is the one who keeps the death rate down;
His to prevent and not to cure, give honor where 'tis due,
That man who guards your home and life is the best friend to you.

Don't scorn to be a plumber then, what honor can surpass
The one you have conferred on me wrought by lead and brass;
I might have carved a title with a scapel, but be sure
It's nobler far to stop life's ills than ofttimes fail to cure.

J. BOWMAN.

Eastern Trade Golf Tourney May 15, 1913.

THE regular Spring tournament of the Eastern Trade Golf Association at the Trenton Country Club, Trenton, N. J., will be held on Thursday, May 15, 1913. The secretary, A. S. Armagnac, has recently issued a circular notice, the contents of which follow:

"Members are notified that the regular Spring tournament of the Eastern Trade Golf Association will be held Thursday, May 15, 1913, at the Trenton Country Club, Trenton, N. J. The location of this club is exceptionally convenient to both Philadelphia and New York members, being nearly equidistant between these two cities.

"The privilege of playing on this charming course has been extended to the association through the courtesy of Elzey S. Aitkin, Esq., of the Trenton Potteries Co., and members may be assured of a warm welcome and a kind hospitality on the part of our Trenton members, who have made arrangements for what promises to be one of our most successful tournaments.

"Philadelphia and New York players will be met on arrival at both the Pennsylvania and Reading stations by automobiles, placed at their disposal by the Trenton members, and will be conveyed quickly and comfortably to the scene of the contest.

"In addition to the association's prizes, special trophies have been presented by the Trenton Country Club, the Trenton Potteries Co., and by James D. Erskine, Esq., of the American Radiator Co.

EVENTS.

"Spring tournament—18-hole, medal handicap. First round of course to count. First, second and third prizes.

"Four-ball competition tournament—18-hole medal play, handicap; best ball, in afternoon. Gold medals for winning pair.

"Match play against bogey—18-hole handicap. Best card, made either morning or afternoon, to count. Prizes for winner and runner-up.

"Players not arriving until the afternoon may compete in all events.

"Note.—The Greens fee, which includes playing privileges and dinner, will be $3. Players traveling by Philadelphia & Reading R. R. are cautioned to leave train at Trenton Junction."

In Sharkey's Behalf.

TOM SHARKEY, the ex-pugilist, runs a cafe in New York. He has a reputation for frugality that is almost national.

When the subway was being dug along 42d St. a stranger, evidently from the deep woods, came along one day and contemplated the sight. In a jagged cavern forty feet below the street level hundreds of men were digging with pick and shovel, while steam drills puffed, and steam scoops swung and mighty derricks creaked. The countryman turned to a citizen.

"Mister," he said, "what are all them fellers diggin' fur?"

"Tom Sharkey lost a quarter!" said the native.

Plumbers—Attention!

If you would increase your business use the

BURNHAM HEATERS

BOTH STEAM AND WATER

There Is a Reason—Ask For It

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PHONE LENOX **1520**

Kindly notice change of phone number

Owing to steadily increasing business and a demand for a larger stock room, I beg to announce to the trade my removal to

1254 Lexington Avenue

Bet. 84th and 85th Streets

where I will be able to supply your needs as promptly as in the past. Sincerely thanking you for past favors and trusting for a continuance of our pleasant relations, I am,

Yours respectfully,

PLUMBERS' SPECIALTIES

HOWARD M. BULLARD

We Make a Specialty of

SHOWERS

Send for Circular

N. Y. Modern Brass Works, Inc.

Established 1895

BRASS FOUNDERS AND FINISHERS

Fire Department and Plumbers' Supplies

667 First Avenue, New York

Always on duty *Established 52 Years*

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Manufacturers of Plumbers' Material

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Near Roosevelt Street Ferry

Brooklyn N. Y.

Formerly at 72 Cliff St., N. Y.

We can eliminate 90 per cent. of your troubles by our quality of high-grade Plumbers' Woodwork, such as Seats, Tanks, Lavatories, Drain Boards, Bath Stools, Medicine Cabinets, etc.

Prompt delivery and satisfaction guaranteed.

DRAIN BOARDS

SHWAB BROS. CO.

Manufacturers of Everything in

Plumbers' Wood Work

Galvanized WASHTUB COVERS

Galvanized FLUSH PIPES

811-817 East 9th St., New York

Florida State Association Holds Its Thirty-first Annual Convention, April 30, 1913.

WITH one of the largest attendances in recent years, the 31st annual convention of the Florida State Association of Master Plumbers was held at Jacksonville, and during that brief session matters of interest to this line of business were l berally discussed. In a nutshell, the reports brought to the convention from every corner of Florida by the delegates show that the plumbing business is in a state of healthy growth and that business is either satisfactory, good or booming here, there or elsewhere. There were 45 regular delegates in attendance at the convention. Besides these, there were half a dozen salesmen and supply house representatives present.

The meeting was called to order at about 10 o'clock by President James N. Coons. A social hour or so was spent, and then the business of the meeting was taken up. The open session came first of all. Following this was the executive session.

The business of the convention was largely along the line of considering trade conditions in the State. The passing of sanitation laws and rigid requirements for the securing of certificates as master plumbers were other matters. In many of the newer cities of the State recent growth has caused municipal regulations to be passed regulating plumbing. The association has always supported such measures, as it believes that such are of mutual benefit in their effect for the plumbing trade and the public as well.

All the sessions were presided over by former President James N. Coons, of Jacksonville. Mr. Coons is well known as a member of the firm of Coons & Golder. He has done much to aid in strengthening the association during his term of office. Previous to the convention I. J. Brown, a director of the National Association of Master Plumbers, was his guest. Mr. Brown made a flying visit to a number of Florida points during his stay.

Among the outsiders who spoke at the convention was Vice-President Herbert B. Race of the Board of Trade. In a brief manner Mr. Race welcomed the association on behalf of the trade body.

J. D. Randle, a well-known representative of a Baltimore supply house, entertained the convention for a few minutes with his geniality, wit and humor.

D. J. Maloney, of the Savannah Supply Co., Jacksonville, was also a speaker. He bore an invitation to the convention that all be his guests at the warerooms on E. Duval St. There the automobiles drew up when the trip over the city was being taken. A handsome jack-knife was presented to all delegates as a souvenir during this call.

At 4 o'clock the meeting came to a close in so far as business was concerned. But there were other features—this the social end which was to be held out to the visitors by the committee which was in charge. After assembling at the City Hall at a few minutes after the adjournment of the convention, the delegates were taken in automobiles for a ride over the city and suburbs. The trip was made out through Riverside to Ortega, and then back through the city and out Talleyrand Ave. and back to the city by way of the cemetery boulevard. R. L. Slauter, an all-round hustler, was chairman of this committee.

The automobile ride ended at about 7 o'clock at the Aragon Hotel, where the banquet of the convention was served. The banquet was one of the happiest affairs of the convention and practically all the delegates remained in the city for it.

D. L. Rathbone, toastmaster, was supported by Mayor William S. Jordan and about 70 delegates.

The menu provided was as follows:

"ESTIMATE SHEET."
Caulking Lead Cocktail.
Stick Solder Celery. Fuller Ball Olives.
Fowl Boullon à la Syphon Jet.
Cast Iron Blue Fish et Spun Oakum.
Mary's "Lamb Chops." "Brown" Gravy.
Never-Split Peas in Roll Rim Hoppers.
Candied Yams in Plumbers' Friends.
Claret Served in Vitreous Tanks.
Deep Seal Turkey Stuffed with Bumpers.

MEMBERS AND FRIENDS OF FLORIDA STATE ASSOCIATION OF MASTER PLUMBERS AT ANNUAL MEETING AT JACKSONVILLE, FLA.

Smooth-On Jelly.
Four-Inch Murphy's à la $ lb. Spuds.
Asparagus Tips to the Inspectors.
Muriatic Extra Dry à la Portable Shower.
Enameled Iron Salads.
Terra Cotta Ice Cream à la Portland.
Demi Tasse à la Wet Vent.
Smoke Jest Cigars.
N. P. Cigarettes—Ground Joint Tips.

When the good things provided had been partaken off, Toastmaster Rathbone called attention to the fact that I. J. Brown, a director of the National Association of Master Plumbers, had to leave for the north at 8 o'clock and for that reason he called upon him to address those present at once. Mr. Brown paid tribute to Jacksonville's civic sentiment and progressive spirit, and predicted that it would not be long before Jacksonville is the "Queen City of the South."

President James N. Coons and J. W. Fowler composed the escort committee to

accompany National Director Brown to the depot.

Mayor Jordan, called upon to address the gathering, spoke of the importance to any city of proper plumbing appliances and facilities, and said that the perfecting of such service was as vitally important to the community as a hospital and proper medical assistance.

Some musical features were here introduced by Messrs. McGowan and Harris, from the Prince Theater. Also by the Rodgers Brothers and the Howland Sisters, their vocal contributions being much appreciated.

Speeches then followed by D. J. Mahony, John Fowler, city plumbing inspector; C. O. Langston, assistant plumbing inspector; Charles Wolf, John Randall, Joe Osborne (of Daytona), J. W. Dubose, Mark Hooker and others.

THOSE PRESENT.

The list of those present at the banquet included John Fowler, G. H. Keefe, Charles M. Chapman, Charles E. Thomas, S. G. Bouis, J. W. Fowler, R. E. Patten, A. L. Wright, Ernest McCarthy (of J. G. Christopher), C. O. Langston, R. L. Slaughter, A. B. Campbell, P. R. Mathis (Green & Firths), John A. Walker, J. Othen, W. F. Clarke, Charles W. Smith, George F. Ballou, L. M. Roberts, George DuBose, J. W. Cardy, Charles G. Belote, M. R. Hooker, C. H. Houghton, John W. Dubose, with the following out-of-town delegates: W. E. McAndrews, of Tampa; H. M. Mahony, of Tampa; C. J. Godsey, of St. Petersburg; M. P. Irvine, of Orlando; C. A. Jamin and A. T. Willey, of St. Petersburg; F. W. Chapman, of Miami; Joe Osborne, of Daytona; John D. Randle, of Baltimore; V. C. Grant, of Daytona Beach; D. Benbow (Auto & Supply Co.), of Palatka; J. A. Whiteside, of Clearwater; D. J. Mahony, of Savannah; Charles W. Gailer, of Daytona; C. V. Simpson, of Gainesville, and C. F. Moore, of St. Petersburg.

Everyone had a good word to say about the excellent manner in which the entertainment arrangements were carried out in the efficient hands of John W. DuBose, C. H. Houghton, R. L. Slaughter, S. G. Bouis and J. N. Coons.

L. M. Roberts, elected president of the Florida State Master Plumbers' Association, was born at Norcross, Ga., just 41 years ago. He has been in Jacksonville in the plumbing business nearly 14 years, during which time he has built up one of the best trades of any man in his line here.

While elections to the State presidency do not come as promotions from lower official positions, still it is worthy of note that Mr. Roberts really gets a promotion he being at the time of his election president of the local plumbers' association.

Jacksonville feels proud that two presidents of the association, for this year and the last, should have been selected by the body from its Jacksonville members, Mr. Roberts succeeding James N. Coons, of the firm of Coons & Golder, here.

Jacksonville also gets the Florida vice-president of the national association in the person of S. G. Bouis, a well-known master plumber of that city as well as one of the delegates to the national convention to be held in Philadelphia, Pa., June 17 to 19; J. W. Fowler, who is also re-elected secretary of the State association, while S. G. Bouis is also selected an alternate delegate to the national convention.

The following is the result of the election of officers for the ensuing year:

President—L. M. Roberts, of Jacksonville.

Vice-President—F. J. Rachu, of Orlando.

Secretary—J. W. Fowler, of Jacksonville (re-elected).

Treasurer—S. A. Whitesell, of Clearwater.

Florida Vice-President of the National Association of Master Plumbers—S. G. Bouis, of Jacksonville.

Delegates to the national convention to be held in Philadelphia June 17, 18 and 19—Joseph Osborn, of Daytona, and J. W. Fowler, of Jacksonville; alternate delegates selected are C. J. Gadsey, of St. Petersburg, and S. G. Bouis, of Jacksonville.

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McNab & Harlin Manufacturing Co.

Manufacturers of

High Grade Brass Fittings

from both the Malleable and Cast Iron pattern, in rough, finished and tinned; Brass Unions, rough, finished and semi-finished; also Valves and Cocks in both brass and iron. We carry a large stock insuring prompt shipments.

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Electrical Pump Exchange

All makes of Electric Pumps Bought, Sold, Rented and Exchanged.

Manufacturers of the Enclosed Gravity Tank Switch for the Automatic Control of Electric Pumps.

Pumps Rented for New Building Work.

Repairs to all kinds of Electrical Machinery.

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That I make a specialty of preparing heating plans and piping layouts?

That I am doing this class of work for some of the largest firms in the heating business and can refer you to them?

That if I knew your requirements it would be to our mutual benefit?

WRITE TO

WM. H. DUSENBURY, 234 5th Ave., New York, N.Y.

He Ran No Risk.

THE tramp sat, serene and dirty, on the back doorstep, eating the breakfast for which he had whined, and the servant stood looking at him curiously. Presently the knight of the road observed the attention she was paying him.

"Wotter yer lookin' at me for?" he asked in idle curiosity. "Think I'm a long lost cousing?"

"No," replied the maid coolly; "but I must say you remind me of a man I useter know."

"Sweetheart?" asked the tramp coyly.

"None of your business!" was the maid's retort. "But something happened to him which'll never happen to you!"

"What's that? Died a millionaire, did he?"

The maid's reply was crushing.

"No; he was accidently drowned while bathing!"

News From Illinois

THE Acme Asbestos Covering & Supply Co., formerly of 1840 Austin Ave., Chicago, Ill., has moved to the northeast corner of Ada and Kinzie Sts.

At a meeting of the Journeymen Plumbers & Steamfitters' local union in La Salle, Ill., May 1, it was decided to quit work because of the refusal of the master plumbers to adopt the new scale of wages, which calls for an increase of five cents per hour.

Nelson Bros., of 3022 N. Halsted St., Chicago, were the lowest bidders for the plumbing work to be installed in the new County Hospital at Harrison and Polk Sts., at a cost of $2,276,000. The main building will be 550x59 feet and two surgical pavilions, 210x35 feet. The plumbing will amount to $172,450.

The American Heating & Plumbing Corp., of 508 S. Canal St., Chicago, will do the plumbing in the new manufacturing plant in course of erection at 3226-70 Belmont Ave.

The Hanley-Casey Co., of 410 W. Ohio St., will do the plumbing in the new 10-story building on the corner of Illinois St. and Dearborn Ave.

E. J. Benning, 1124 Belmont Ave., Chicago, is busy with a number of plumbing contracts, including the new seven-story factory building at 440 W. Superior St.

A new factory building will be erected at 153 W. Ohio St., Chicago, and the plumbing will be installed by T. P. Culloton, of 63 W. Michigan St.

Edward Stiernberg, 1741 Foster Ave., Chicago, has the plumbing contract for the new garage at Clark St. and Farragut Ave.

A new apartment building to cost $16,000 will be erected at N. Shore Ave. and Sheridan Road, Chicago. Thomas J. O'Mally, of 308 W. Oak St., has the plumbing contract and the Sheridan Electric & Fixture Co., of 4352 Evanston Ave., will install the electrical work.

The plumbing contract for the new flat buildings at the northeast corner of Scott St. and Homan Ave. has been awarded to M. Rosenzweig, of 2011 Ogden Ave., Chicago.

The $10,000 contract for plumbing and heating equipment for the two cottages at the Geneva State Home for Girls has been awarded by the State Board of Administration to Kohler & Harter, W. Main St., plumbing and heating contractors of Aurora, Ill. The work is to begin immediately and it is hoped to have both new cottages ready for occupancy by June 1.

Many theatres, including some of the loop playhouses, of Chicago, Ill., face the possibility of being closed by the Health Department on account of violations of the ventilation regulations of the building ordinance. Since the first of the year the ventilation bureau of the sanitary division of the Health Department has been conducting investigations which show that few of the older theatres have installed required fresh air systems.

One of the modern and up-to-date plumbing establishments of Rock Island, Ill., is that of C. E. Lamp. He carries everything in plumbing supplies.

Measure Providing for Inspection of Public Schools.

THE Illinois Senate Bill No. 354 confers upon county superintendents the power to approve plans and specifications for the erection or remodeling of school buildings when the same comply with the specifications and requirements respecting lighting, heating, ventilation, toilets, water supply and protection against fire, made and published by the superintendent of public instruction.

Also to request the State Board of Health, the State Architect or the State Fire Marshal to inspect school buildings which appear to him to be unsafe, unsanitary or unfit for occupancy. When any one of these inspectors shall have declared, in writing, that a school building is unsafe, unsanitary or unfit for occupancy, it shall be the duty of the County Superintendent of Schools to condemn the same and notify, in writing, the Board of Directors or Board of Education, stating specifically the reasons for such condemnation. Thereafter it shall be the duty of the trustees of schools to withhold the share of the distributive fund from such district until such disability shall have been removed.

Freeport's New Water Works.

THE Freeport (Ill.) Water Co. is engaged on improvements at its plant which will give Freeport one of the finest equipped water plants in the northern part of the State. The plant at the present time ranks with the best in the line of equipment and the quality of water furnished and, with the changes now being made and contemplated, the plant will be able to meet all emergencies.

The first pump, with a capacity of 1,500,000 gallons, was installed in the '80s. The second, with 3,000,000 gallons, was installed many years later, and now, in 1913, the third will be installed, with a capacity of 4,000,000 gallons.

A large reservoir has been completed east of the plant. It has been placed partly in the ground, and is of concrete. With the reservoirs that the company now has plenty of water can be on hand for all use.

The company is going to place a new boiler in the pumping station, and in order to have room for this they have to remove the old coal bins south of the station. They are planning to build concrete coal bins under the Illinois Central tracks and dump coal from the cars directly into the bins. This will be a great deal more economical and will save the water company much money each year for labor used in shoveling the coal from the cars into the bins.

Plans are now under way for new filter tanks, and with these added the company will keep up with the growth of the city. A wing finished with concrete has been added to the east of the present station and the new pump will be installed there.

Freeport can well feel proud of her water system, as there are few plants in other cities the size of Freeport that has water as pure and as plentiful as this city.

PENNSYLVANIA NOTES.

SAMUEL E. MORRISON, of Honesdale, Pa., who is just completing the plumbing and steam heating job in the new Burney electric elevator factory, at this place, has been awarded the plumbing and ventilation contract for the new Berlin High School.

The contract for the plumbing and heating of the new building at the Quincy orphanage has been awarded to S. Holmes Gillan, Chambersburg, Pa.

J. G. Faust, of Reading, Pa., has opened a plumbing shop and display room at 437 S. 15th St.

Five old buildings have about been razed at Bigham and S. 10th Sts., Southside, Pittsburgh, Pa., to make way for the $100,000 public bathhouse which is to be built by the Henry W. Oliver estate. McClure & Spahr are the architects.

Enterprising Allentown, Pa.

AMONG the many progressive and enterprising plumbing and heating contractors in Allentown, Pa., the firm of Moyer & Kuhnsman seems to have gotten its share of the work for the year. Among the many new contracts that they have on hand are the following: Row of 20 houses, plumbing and heating, for James Cassone, on Jordan and Washington Sts.; row of 13 houses, plumbing and heating, for Solomon Grissner, East Allentown; 11 houses, plumbing and heating, for Chas. Schadt, 18th and Linden Sts.; 28 houses, plumbing and heating, for Kummery & Butterweck.

They are just completing 22 bathrooms in a large apartment house in which they have also installed gas ranges and automatic water heaters for each apartment. At the present time they are running 15

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men, but will put on many more as soon as the weather permits. Fred J. Moyer takes personal charge of the outside work, while Chas. S. Kuhnsman sees that the office and financial end are carefully looked after. He also keeps in touch with all new work that is out for figures, and doesn't let anything get by him. They have just added to their business a two-ton "Buick" truck, and this will enable them to get material on the jobs at short notice.

Any manufacturers wishing to send them catalogues and price lists are assured that they will be gladly received.

New Incorporations.

The George L. Brucker Plumbing & Heating Co., Inc., of Utica, N. Y. Capital, $10,000. Incorporators: George L. Brucker, Albert L. Klube and Louisa H. Brucker, 77 South St., Utica.

Boston Pipe & Fittings Co., Boston, Mass.; steamfitters and plumbers' supplies. Capital, $35,000. Incorporators: L. S. McBreary and W. McGrann, Belmont.

People's Plumbing & Construction Co., Los Angeles, Cal. Capital, $100,000 (subscribed $50). Directors: W. G. Emmet, R. Nightingale, E. Jones, E. A. Fountain and R. H. Canfield.

C. W. Arnquist, president of the Arnquist Mercantile Co., of New Richmond, Wis., has been made president of the Petroleum Universal Power & Heating Co., recently organized with a capital stock of $50,000 to perfect a kerosene blow-torch, the invention of A. W. Swanberg, of Minneapolis.

A new Board of Examining Plumbers was appointed by Mayor Schoeneck of Syracuse, N. Y., on April 2 to replace the one which was appointed during the second administration of Mayor Alan C. Fobes. The new members are Walter Coling, 2035 S. Geddes St.; Wm. A. Boysen, 505 Dewitt St., and Edmund S. Ringer, 2226 Kellogg St. City Engineer Henry C. Allen and Plumbing Inspector Michael E. Mooney are members of the board ex-officio.

DELAWARE and HUDSON CO.

ADVANTAGES OF AN INDUSTRIAL LOCATION

This railroad extends from the coal fields of Pennsylvania to connections with all the great railroads of Canada and the Eastern trunk lines; provides a fast freight service to the East, West, North and South, and parallels the upper Hudson River, also the new two-thousand ton barge canal connecting the river with Lake Champlain, now being built by the state. An establishment located in this territory receives the benefit of cheap fuel, electric power and low freight rates.

Its Industrial Department will aid in the establishment of industries, develop side track questions and give complete information.

IRA H. SHOEMAKER
INDUSTRIAL AGENT

Albany, N. Y.

SPECIAL NOTICE
50c. for 25 words or less.
2c. for each additional word.

WANTED—Accounts with manufacturers on a popular line of brass goods and fittings for the New England territory; best of references; on a good proposition would guarantee accounts. "J. H. L.," care Merchant Plumber and Fitter, 200 Fifth Ave., New York City.

REPUTABLE and successful manufacturer's agent desires an additional soil pipe and fittings, stop cock, gate valves and pottery account. Address "J. L. P.," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York City.

Sell your surplus couplings and fittings. Write us what you have to dispose of. THE A. & J. MANUFACTURING CO., 561 W. Lake St., Chicago, Ill.

Manufacturers, Attention!

DO YOU WANT YOUR PRODUCT MARKETED ECONOMICALLY IN NEW YORK STATE AND NEW JERSEY BY TWO REPRESENTATIVES, WHO HAVE BEEN SELLING PLUMBING MATERIAL AND SPECIALTIES FOR OVER 10 YEARS PLUMBERS' BRASS GOODS—SPECALTIES PREFERRED IF THEY HAVE MERIT CONSISTENT WITH PRICE. WE HAVE THE ABILITY TO SELL AND WILL GIVE YOU DOUBLE SERVICE FOR LESS THAN COST OF ONE REPRESENTATIVE SO LET'S GET TOGETHER. ADDRESS "E. J. M.," CARE MERCHANT PLUMBER AND FITTER PUBLISHING CO., 200 FIFTH AVE., NEW YORK.

MANUFACTURERS' AGENT

selling in New York, New Jersey, Pennsylvania and New England, desires connection with manufacturers of the following lines: Brass, malleable fittings, soil pipe and fittings, tanks and seats; well acquainted with principal jobbers in above mentioned territory, and have sold them for years. Address "Immediate," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York.

COMMONWEALTH HOTEL
INC.
Opposite State House, Boston, Mass.

Offers rooms with hot and cold water for $1 per day and up, which includes free use of shower baths.

Nothing to equal this in New England

Rooms with private baths for $1.50 per day and up; suites of two rooms and bath for $4.00 per day and up. Dining Room and Cafe First-Class. European Plan.

ABSOLUTELY FIREPROOF

Stone floors; nothing wood but the doors. Equipped with its own sanitary vacuum cleaning plant.

Strictly a Temperance Hotel

Send for Booklet.

STORER F. CRAFTS, General Manager

New York State Notes.

BIDS were opened in the Department of Public Works of Buffalo, N. Y., April 4 for the heating and ventilating and plumbing installations in the new Masten Park High School. The lowest bidder was the R. T. Ford Co. of Rochester, which offered to do the plumbing for $33,000 and the heating and ventilating for $83,000.

Charles Nagle, of Herkimer, and Maurice Finn, of Ilion, have bought the plumbing business of Camreon Bros., of Ilion, N. Y. Mr. Nagle has had eight years' experience, as also has Mr. Finn; both are young men of good habits and responsible character; they are good workmen, and will doubtless get their fair share of the work in Ilion and vicinity.

Frank X. Burnes, of Poughkeepsie, N. Y., has resigned his position as auditor of the Central Hudson Gas & Electric Co. and will go into the plumbing business with his brother, E. P. Burnes, who already has established himself in that line.

A verdict for $1,700 for plaintiff was awarded April 3 in Trial Term, Supreme Court, at Rochester, N. Y., in the case of Wright & Alexander against the Schlegel Mfg. Co. The suit was to recover for plumbing contracting work, and involved a royalty of $125 claimed by C. A. Ball, inventor of a steam pumping apparatus.

The plumbing, heating and ventilating firm of Gleason & Madill, of Watertown, N. Y., composed of Commissioner George H. Gleason of the Board of Public Safety and William Madill, occupying quarters in the Lansing building in State St., has dissolved by mutual consent, and Commissioner Gleason will continue the business, while Mr. Madill will take a position on the road.

Henry H. Laun, of Whitestone, N. Y., formerly with W. J. Cantwell, plumber, of Utica, has opened a plumbing shop on Goodell Ave., in that village. Mr. Laun has had seven years' experience and is a member of the Utica union.

At a special meeting of the Board of Education held March 24 at Penn Yan, N. Y., the contract for the reconstruction of the Liberty St. school building was awarded to G. B. Stryker, of Auburn, a former contractor of Penn Yan, the contract price being $22,387.30. The contract for heating plant was awarded to William H. Timmons, also of Auburn, the contract price being $5,097.

Joseph A. Ehleider, of Poughkeepsie, N. Y., has been appointed Plumbing Inspector by the Poughkeepsie Board of Health. Mr. Ehleider is a plumber of 19 years' perience.

A. J. Bannigan has retired from the firm of Bannigan & Cooper, plumbers, of Utica, N. Y., and the partnership has been dissolved. Mr. Bannigan will go to Hartford, Conn. M. Angelo Cooper has taken over the business of Bannigan & Cooper and will conduct it at 10 Devereux St., as formerly.

A fire which started in the Lawrence Plumbing Co.'s building in Corning, N. Y., on April 18 and lasted about three hours did damage amounting to over $20,000. The Lawrence concern had a loss of about $12,000.

At a meeting April 28 the Rochester (N. Y.) Board of Education awarded contracts for a new addition to No. 11 School as follows: Carpenter and mason work. P. G. Houck, $33,839; plumbing, R. T. Ford, $696; heating and ventilating, Edward Towe, $3,750.

Thomas F. Murphy and Henry Laun have joined in a partnership in the plumbing business at Whitesboro, N. Y.

New England News.

THE bids for the Bar Harbor, Me., Isolated Hospital, which was authorized by a vote of the town at the last annual meeting, were opened at the Selectmen's office April 17. The successful bidder for the plumbing and heating was Lester P. Carter.

John M. Gill, of Waterbury, Conn., has been awarded the contract for the plumbing, roofing and metal work for the theater to be erected in Naugatuck for Frank Brothers, of that city.

The journeymen plumbers of Malden, Everett and Medford, Mass., went on strike yesterday because they were refused a wage of $4.50 a day. They are now receiving $4.10. After several conferences with the employers, who refused to listen to their demands, the men held a meeting and 50 voted to strike.

At a meeting of the union plumbers of Lowell, Mass., held in their rooms on Central Street, April 30, it was voted to go out on strike. Forty-eight plumbers will be affected by this strike. Thirty-eight voted on the question, 35 expressing their desire to go out and three voting in the negative. Some time ago the master plumbers received a notice asking for $4.50 a day and after giving the matter their attention they stated that at present it would be impossible for them to comply with the request, but they offered them $4 a day beginning the first of July instead of $3.75, which they get at present.

Master Plumbers Organize at Woonsocket, R. I.

A MASTER plumbers' association was organized April 25 at a meeting of the Woonsocket, R. I., contracting plumbers, held in Pythian Hall. It is planned to have the local association affiliated with the national organization.

Temporary officers were elected as follows: President, William F. Barry; secretary, Willis E. Hope; executive committee, Councilman Frank P. O'Donnell, George A. Grimord and Peter B. Mulvey. Another meeting will be held in the near future at the call of the chair.

Richard J. Welch, of Lowell, Mass., a director of the National Association of Master Plumbers, was present and addressed the meeting. He explained the workings of the organization and told of the better understanding among the plumbers of a city when they had an organization of that kind.

Annual Field Day of the Maine State Association.

MONDAY, June 9, has been selected for the annual field day of the Maine State Association of Master Plumbers to be held at New Meadows River. The place of meeting is centrally located between Bath and Brunswick on the line of both trolley and steam roads, making easy connections with trains from all over the State.

Dates of Coming Conventions.

Oklahoma State Association of Master Plumbers, annual convention, Sulphur, Okla., May 12, 13 and 14.

Connecticut State Association of Master Plumbers, annual convention, Hartford, Conn., May 14.

American Society of Inspectors of Plumbing and Sanitary Engineers, annual meeting, Hotel Seelbach, Louisville, Ky., May 20 and 22.

Colorado State Association of Master Plumbers, annual convention, Antlers Hotel, Colorado Springs, Colo., June 5, 6 and 7.

New Jersey State Association of Master Plumbers, annual convention, Camden, N. J., June 16.

National Association of Master Plumbers, annual convention, Bellevue-Stratford Hotel, Philadelphia, Pa., June 17, 18 and 19.

Master Steam and Hot Water Fitters' Association, annual convention, June 23, 24, 25 and 26, Niagara Falls, N. Y.

The Belgrade Garage & Plumbing Co., of Helena, Mont., has been incorporated by C. H. Morse, C. H. Hecox, A. F. McCune and G. J. Heck, all of Belgrade. The company is capitalized at $15,000, of which $40 has been subscribed.

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IOWA NOTES.

CLINTON, Ia., has a new plumbing firm, that of Parker & Johnson, who have opened a first-class plumbing and repair shop at 210 Seventh Ave. Both members of the firm are well known in Clinton, and both are thorough workmen. Mr. Parker has been in the employ of George Kendall for 11 years, and C. E. Johnson has been with Kendall for 20 years. Mr. Parker's residence is in Lyons.

A. G. Gruwell has bought a one-third interest in the business conducted by Bert Leech and Harry Gruwell at West Branch, Ia., under the firm name of Leech & Gruwell, and now the firm will be Leech, Gruwell & Co.

Items Gathered Here and There.

E. F. SCHOFIELD, formerly superintendent of Geo. W. Kyle & Co., Wheeling, W. Va., will open a plumbing and heating establishment at 12 10th St., incorporated under the name of the Schofield-Cowl Co.

Harry W. Platt has commenced his duties as electrical and plumbing inspector for St. Petersburg, Fla., taking some of the extra work of Jack Askew. Mr. Askew will look after the city's interest in attending to the sewer work of inspecting the plumbing and all the outside work in the plumbing line.

The new water system is now in operation at Talihina, Okla., having been accepted by the city, and local plumbers are busy completing connections with residences. The plant receives its supply from springs on the south slope of Winding Stair Mountains. A number of these springs have been united, and they form a beautiful clear creek.

S. E. Renninger, of Findlay, O., the S. Main St. plumber, has moved his shop and stock to the McKelvey block, first door south of the Sanitary Dye House, and will add to his stock of shelf and heavy goods.

Sass & Almegord is a new firm which has succeeded to the plumbing and tinning business of the J. H. Brophy Construction Co. at West Palm Beach, Fla. This new concern will continue business with headquarters at the old stand for the present. C. W. Sass is from Cleveland and F. H. Almegord from Chicago, and both of them are experts in their line of business.

The contract for plumbing for the Food Products building at San Francisco, Cal., has been awarded to the John G. Sutton Co. Plans and specifications for the Agricultural building have been completed, and bids were received on April 15.

The contract for the heating and plumbing of the new high school building to be erected in Carlisle, Ind., was let April 26 to the Buck & Boyd Co., of Vincennes, the amount of its bid being $5,000.

W. P. Knowles, of Elizabeth, N. C., has been awarded the contract for the heating and plumbing of the First Baptist Parsonage.

Many a woman's longevity is due to the fear that her husband might marry again.

E. SMOLKA PLUMBING SUPPLY CO.

JOBBERS IN

Plumbers', Steam and Gasfitters' Supplies

Good Goods—Low Prices—Prompt Deliveries

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Good Plumbing Material

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CABLE ADDRESS GLAUBERSPECIALTIES

Maryland Notes.

WILLIAM A. EBERT, of Frederick, Md., has removed his plumbing establishment from S. Market St. to 169 W. Patrick St.

Among the many enterprising firms throughout the State of Maryland may be mentioned that of F. C. Bartley & Co., engineers and contractors, 2 Glenn St., Cumberland. This firm not only undertakes large building contracts, but it also specializes in the installation of steam, hot water and ventilating plants and all manner of modern, high grade plumbing, sewering, gas and water pipe fitting. F. C. Bartley & Co. constructed the new fireproof building of the Chesapeake & Potomac Telephone Co. in that city and also installed the heating plant in St. Mark's Lutheran Church.

Samuel Lawton, 50 years old, prominent business man and Republican of Oakland, who served in the last Maryland House of Delegates from Garrett County, died April 10 at the Western Maryland Hospital here from peritonitis. He has been at the institution eight days. Mr. Lawton is survived by his widow, two sons and two daughters. He belonged to the Knights of Pythias and other organizations. He was associated with his sons in the plumbing business at Oakland. Mr. Lawton was one of the best known men in Garrett County and was very popular.

Lawler's Sanitary Tee for Range Boilers.

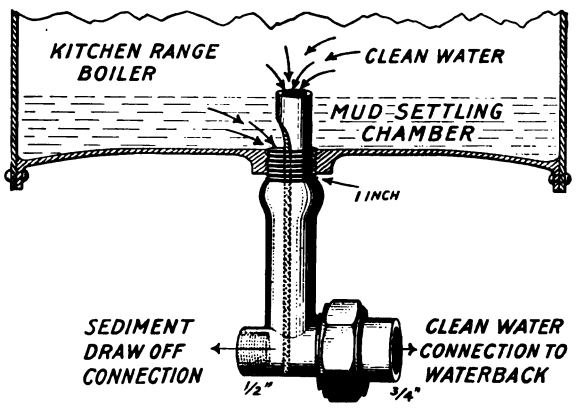
CLEAN hot water is the result when the Lawler sanitary range boiler tees are used, as shown in the accompanying illustration. The sediment which settles at the bottom of range boilers will not flow to the various fixtures of the house every time warm water is drawn, because the special tee forms a sediment pocket at bottom of boiler so that the dirt thus collected can be drawn off to the waste pipe at leisure.

As the water flows from boiler to water back or heater from a point above the mud receptacle it will not have the settling mud in it, so that clean hot water can be delivered from a kitchen boiler at all times.

It costs no more to insert this sanitary fitting than that of an ordinary tee.

The special object of this improved fitting is not alone in the saving of time and expense in the construction of the work, but it is intended to fill a long-felt want for the purpose of separating sediment or dirt from the water which constantly flows in from the mains of any water supply and settles at the bottom of kitchen boilers.

We would advise our readers writing to the manufacturers, the Lawler Regulator Co., 473 W. Broadway, New York, and mentioning the MERCHANT PLUMBER AND FITTER.



The "Madison" Reversed Trap Closet.

THE Thos. Maddock's Sons Co., of Trenton, N. J., has issued a very attractive folder illustrating and describing its "Madison" reversed trap closet, with lip in combination with the company's

"Madora" low pattern tank, which is shown in the accompanying illustration.

The seat furnished with this closet is made by Wm. Heap & Sons and has their "Bull Dog Joint," with a heavy N. P. post bar hinge. It is open in front and closed in the back. The "Madora" tank is fitted with a "Perfect" double-action top side lever, an elevated ball cock, Douglas patent flush valve and a good high-grade set of fittings throughout.

The makers state that the "Madison" is one of the best propositions for competitive work of the better class or where a syphon jet cannot be afforded. It has a water surface of 10½ inches.

If any of our readers have not received a copy of this folder they can obtain one by writing the Thos. Maddock's Sons Co., Trenton, N. J., and mentioning the MERCHANT PLUMBER AND FITTER.

OBITUARY

Charles H. Ripley, Chicago, Ill.

Charles H. Ripley, assistant treasurer of the American Radiator Co., died April 19 at his late residence, 3530 Rita St., Chicago, after a brief illness. He is survived by a widow, Mrs. Minnie Tate Ripley, and two daughters, Misses Lois and Dorothy. Mr. Ripley was a member of the Hamilton Club and was a past grand regent in the Illinois Royal Arcanum and a member of Lake View Council.

George W. Bonn, Brooklyn, N. Y.

George Washington Bonn, a retired chandelier manufacturer, who had factories in Baltimore, Philadelphia and Brooklyn, died April 28 at his home, 80 Clinton Ave. He was born in Baltimore, Md., March 5, 1829, was an Odd Fellow and member of Knights of Pythias, and is survived by a widow, Sarah J.; one son, Thomas, and a sister, Mrs. Fanny Hubbard, of Loraine, O. He was also a member of Simpson M. E. Church. Interment was made at Greenwood Cemetery, Philadelphia.

William Winkelman, Pittsburgh, Pa.

William Winkelman, a life-long resident of Pittsburgh, died April 24 at his home, 4025 Perrysville Ave. Mr. Winkelman had been engaged in the plumbing business in that city for over 17 years. He was a member of Twin City Council No. 121, Junior Order United American Mechanics and the Royal Arcanum. His widow, five children, one brother and three sisters survive.

W. Sherman Kraber, York, Pa.

W. Sherman Kraber, 436 Linden Ave., a member of the firm of E. I. Kraber & Son, tinners and plumbers of York, Pa., died suddenly at the family residence April 25 from an attack of pulmonary odema. Mr. Kraber had been subject to these attacks due to indigestion, for some time, but otherwise seemed to be in a normal state of health. He was aged about 48 years. He is survived by his wife and the following children: Edwin I. Kraber, Jr. William E. Kraber, Jr., Esther L. and J. Fred Kraber, all residing at 436 Linden Ave.

The Macomb Tinning & Plumbing Co. with offices on S. Lafayette St., Macomb, Ill., has received word that it has been awarded the contract for the plumbing to be installed in the new passenger depot being built in that city.

MERCHANT PLUMBER AND FITTER

DEVOTED TO PLUMBING, HEATING, VENTILATING, LIGHTING AND VACUUM CLEANING

Published Semi-Monthly at 200 Fifth Ave., New York, N. Y.

NEW YORK, MAY 25, 1913.

By the Merchant Plumber and Fitter Publishing Co.

Wilmington, Del., Plumbers and Their Guests Ready to Partake of the Shad Bake at Their Annual Outing—The Top Picture Shows the Overflow.

How New York City Will Get Its $200,000,000 Drink.

THAT the waters of the Atlantic and the Pacific may be wedded at Panama and that the commerce of the whole world may thereafter keep up a continually increasing triumphal procession through the canal, the people of the entire United States will pay out something like $400,000,000.

Right here within a zone centering at City Hall, with a radius of 15 miles, the citizens of Greater New York are going to pay out more than $200,000,000 that their cup may be full—of mountain water. The people of Gotham have plenty of reason to sit up and be proud of the work for which they have contributed this tidy sum, and when the nation at large boasts of its doings at Panama they can point out that here in the Empire State is nearing completion an engineering task which in many ways is far more spectacular than the undertaking upon the isthmus—wonderful as that is.

True, at Panama there has been the enervating tropic sun and the grewsome record of disease in the past, but even so, the laborer has toiled in the light of day and all of his work has been above ground. Certain it is this ground has not always been a stable footing, and quicksands have added to the element of danger, but the toiler has had always more than a fighting chance, even though his battle at times taxed to the utmost the mechanical titans he summoned to his aid.

The men who have been working upon the Catskill aqueduct have forged ahead to the climax of their task under far different conditions and, in some sections of their work, with peril facing them at every foot of the way.

According to the city statisticians, the municipal growth of the city of New York is increased by an added population every two years totaling the inhabitants of Jersey City of to-day. In other words, every 12 months we have within our gates 135,000 persons more than we had the year preceding. In addition to these are the hundreds of thousands of commuters that come here daily to help turn the commercial and industrial wheels of this great community. To supply water for the needs of all these has been a perplexing problem in the past. Any kind of water will not do; it must be as pure as possible, and as little likely as precaution can make it to be tainted with the germs of disease.

The fear of disease even more than the immediate need of an adequate supply of water compelled the Board of Water Supply to go 90 miles up State, as the crow flies, to the Catskill watershed, and just seven years ago the preliminaries of the work were agreed upon and the first of active operations begun. Since that beginning work has gone on with tireless energy—the aqueduct advance ranging weekly from 1,000 feet to more than 7,000 feet of construction in one form or another as it traveled along the surface of the earth, burrowed through an overlying mountain or dived headlong down hundreds of feet until it could straighten out upon a horizontal course way below a riverbed.

The entire operative army has reached a maximum of toilers of all grades of more than 17,000 during the open months of the year and a minimum of 500. But the latter figure has been several times greater when the men could keep steadily at their work below ground the year through without the hindrance of frost or snow. Since active operations began here within the city limits the aqueduct army has reached a total of approximately 25,000, and this industrious personnel does not take into account at all the wives and children at the various division camps.

This engineering fighting force—for it has been a battle with nature in many of her most trying moods—has struggled manfully that we may tap the first of a series of mountain reservoirs which, eventually, are to yield even in years of extraordinary dryness, a continual supply of 770,000,000 gallons every 24 hours. The Ashokan reservoir, drawing mainly from the Esopus region, will have a watershed area of 255 square miles, but when the whole gigantic scheme is completed it will drain a total territory of quite 900 square miles.

The aqueduct is being built to bring down from the mountains a daily supply of 500,000,000 gallons, but this will be about double the capacity of the Esopus watershed, which can be counted upon during a series of dry years. Please note that the engineers are always underestimating the normal accumulation of water in that region and, for that very reason, these figures represent the unfavorable.

To-day New York is consuming an average of 500,000,000 gallons of water every 24 hours, and the Croton system is normally equal to the daily demand of 350,000,000, so you see just how much the tapping of the Ashokan reservoir will add to our abundance and guard us against both the perils of a water famine and that of a great conflagration. As the division of duty is now assigned, the Croton watershed will send its tribute mainly to the inhabitants of the island of Manhattan, while the new source of supply will take care of the needs of the associate boroughs. Even so, the life giving flood from the Catskill foothills will be three days on its journey ere it comes to rest at the Silver Lake terminal reservoir on Staten Island.

From the Ashokan reservoir to Staten Island the Catskill aqueduct traverses wandering route of 127 miles, and in doing this skirts along many a steep hillside, pierces mountains, descends beneath rivers and wide, deep valleys and crosses the Narrows of New York harbor. From the city's northern boundary up to the Ashokan Reservoir there are 92 miles of aqueduct, and between that reservoir and Croton Lake, the principal basin on the Croton watershed, there are 64 miles.

While the new line passes directly under Croton Lake, it will not tap the latter except in an emergency, and then it will do so primarily as a feeder, a riser leading up from the Catskill aqueduct making it possible to flood the Croton basin if that be temporarily necessary as a preliminary to draining the mountain tubes for inspection.

Leading from the Esopus basin the underground aqueduct has a diameter of 17 feet and would make a very commodious tunnel for any of our subway trains. For 64 miles by an easy hydraulic gradient the waters are led to another big basin east of Tarrytown—the Kenisco reservoir. The latter will act as a place of emergency storage and has a capacity equal to the demands of the city for a period of 75 days.

Cement plays a vital part in the get-up of the entire aqueduct system, and this does not tend to give the water a particularly fresh or palatable taste. Therefore it is necessary that the supply should be purged from time to time in order to make it thoroughly potable. For this service the experts have provided large aerators both at the Ashokan and Kensico reservoirs.

These are great rectangular basins 500 feet long by 250 feet wide, containing approximately each 1,800 nozzles from which jets of water will be tossed into the air. Just fancy all of these geysers at play, throwing the waters aloft high enough to spread them broadcast into fine spray mixing thoroughly with the free oxygen before falling back cleansed and revitalized. In this manner all noxious gases will be dissipated and the water given again the invigorating qualities of a mountain stream.

Fifteen miles south of Kensico there is another reservoir at Hill View just over the New York city line to the north. This basin will serve the purpose of equalizing the difference between the Catskill supply and the city's demands from day to day and as it varies also from hour to hour. The Hill View reservoir has a capacity of 900,000,000 gallons, and this surplus beyond the normal daily requirements of 500,000,000 gallons is a potential protection against a big fire.

In order to prepare the Ashokan basin for the reception of our drinking water it was necessary to remove or to condemn seven villages with a total population of about 2,000 persons and these have to be evacuated by the first of May and the ground cleared for the waters that will begin to gather thereafter. Whatever re-

LARGEST WATER SURFACE

The "Madison" Reversed Trap Closet Has a 10½ inch Water Surface—2 inches More than Any Other of this Type.

PLATE 3017
The "MADISON"

But this is not the only point in favor of the "MADISON." It has a fine, massive appearance, and looks more like a Siphon Jet than any other Reversed Trap closet made. Its action is stronger than any closet of similar type.

"The Anchor There means Quality Ware"

Thomas Maddock's Sons Co.
Oldest Sanitary Potters in America
Trenton, N.J. U.S.A.

luctance there may be on the part of some of these people to leave it will be effectually overcome by the rising tide, for one of these townships will lie 25 fathoms down below the surface of the reservoir when filled.

Even when feeding its waters cityward, under the most unfavorable seasonal conditions, the Ashokan reservoir should be filled to its brim inside of a year and a half, and under a more favorable and normal average of rainfall the capacity would be reached a good deal sooner. The water supply engineer bases his estimate always on the average of fairly long periods, and he figures with an ample margin of safety.

No part of this great undertaking has been more speculatively fascinating than the pioneer work of plotting the aqueduct's line of march. The engineers knew that they had to go hundreds of feet down below the hydraulic gradient or slope of the gently falling waters in some places in order to make it possible for the men to work and to have over the confined waters a ponderous mass of rock strong enough to resist the bursting stresses of those sections of the tubes that would have to be filled. Please remember right here that a goodly portion of the aqueduct where it is of the so-called "cut and covered" type, is not fully charged, there is an air space above the surface of the water of quite 18 inches; in fact, sufficient headroom for inspectors to pass through in flat-bottomed punts.

But the prospectors struck an engineering snag when they reached the Hudson River just south of Cornwall. The problem was to locate solid rock and to get below the heterogeneous mass of glacial drift which overlay the true ledge and formed the material of the river bottom. From a line of scows test borings were made at intervals across the Hudson from the shadow of Storm King to the foot of Breakneck Mountain, but though they went down 700 feet the drills did not disclose the wished for rock. They went through a number of great boulders that might have deceived the unwary, but these temporary obstructions did not mislead the men working under Robert Ridgway and the general supervision of the chief engineer, J. Waldo Smith.

Finally the expedient was hit upon of starting from two points, one on each side of the river 250 feet down, and boring slanting holes toward a common center 950 feet below the surface of the river. When the two lines met after months of patient cutting of the diamond drills their courses were found to run through solid rock 250 feet below the bottommost deposit of the glacial drift.

To make sure that the ledge was uniform another line of dipping convergent borings was driven, and these after traversing to a vertical depth of 1,500 feet gave the assurance necessary. The longest of these borings cut its way through the rock for more than 2,000 feet. Midway between the inverted opices of these two series of test borings it was decided to locate the path of the aqueduct 1,114 feet down below the surface of the Hudson. This is the greatest depth to which the aqueduct has been carried.

The water in this portion of the city's underground river is subjected to an enormous hydrostatic pressure, and the overlying rock was needed in order to make it possible for the men to work there in free atmosphere. Divers have gone down to a depth of 210 feet and performed some trifling labor, but tunnel workers must actually toil, even though the pneumatic drill and dynamite are breaking the worst of the way through a stony barrier. Therefore they must do this unhampered by air pressure if they are to burrow 1,100 feet down below the light of day, and their working chamber must be protected from external pressure.

Just the same it is something of a problem to ventilate a pit of that depth—especially when the gallery runs the full width of a broad river. Here is where the necessity of utilizing the energy of compressed air for the drills served a two-fold purpose. The exhaust from these borers expanded upon its release, carrying fresh air into the working space and pushing itself upward again, thus stimulating a draught.

The building of railway tunnels here within our gates has given us a good idea of the risks the sand hog runs, because his is the task of balancing the push of compressed air, in which he works, against the continually threatening surrounding water, soft mud and quicksand. Because of the physical stresses involved, the aqueduct engineers have been obliged to keep that part of the water system that has burrowed through conditions of this sort limited to a maximum depth of 150 feet here in Greater New York.

More than once the men have been hard pressed for it in their seemingly unequal battle with the enveloping water and quicksand, but courage and engineering cunning have won each of these contests. In going under the East River the aqueduct has sunk to a depth of 752 feet below sea level.

Right here beneath our feet for the past year and more the aqueduct builders have been attacking the solid rock with millions of pounds of dynamite and yet most of us have known nothing whatever about these violently wrecking subterranean blasts. In some cases as much as 800 to 1,000 pounds of this intense explosive was set off daily at the base of a number of the shafts, and the only surface evidence has been the noisy tumbling long afterwards of broken rock into the waiting carts at the street levels.

To give a notion of the capacity of the great Ashokan reservoir, that is, the two immense basins into which it is formed, it may said that when filled it will hold a total of 132,000,000,000 gallons. Last October, here upon the Hudson, we were filled with pride at the splendid display of our assembled battle fleet of 123 craft, totaling more than 724,000 tons of dead weight or displacement. Not only will the waters at Ashokan be able to float a fleet numerically far larger than with plenty of elbow room, but the pent-up flood will weigh 650 times as much!

That is the capacity of the cup that is to quench our thirst, supply our general water needs, and to drench any threatening conflagration. Because of the greater head or height of the Hill View reservoir than that of Croton Lake, the water will be forced in seeking its level to an altitude of 20 stories here upon Manhattan, where to-day its natural impulse would not carry it above seven. Not only will the new source give greater protection, thus improving property values and lessening insurance rates, but it will make unnecessary the maintenance of the existing high pressure pumping plants now here.

Plumbers Must Lay Pipes Clear to Property Line.

THE Sewerage and Water Board of New Orleans, La., has adopted a resolution requiring plumbers to bring pipes out of the property line of residences so as to be readily connected with the water and sewer mains. In the event the employes of the board, after going to a residence to make connections, find the pipes have not been brought to the line, the property owner will be charged $3 for expenses.

The board turned down, on account of lack of funds, the petition to cover the Lafayette Canal. It was stated it would cost $239,000 to cover the canal. Provision has been made to cover the Napoleon, Claiborne and Carrollton canals.

In reply to a petition from the Progressive Union asking that the law be enforced in reference to the demolition of cisterns, it was stated the board is now compelling connections with the sewer and water mains and cisterns will necessarily be abolished in time.

The protest of E. Perrin in reference to the use of dynamite in connection with the construction of the Napoleon Ave. canal system was referred to the executive committee.

Mayor Behrman announced the appointments of H. Hoey and J. W. Baggert as inspectors at $85 per month each. The board appropriated $26,000 for the purchase of property necessary for the right of way of Metairie relief canal.

Superintendent Earl reported 440 miles of sewer pipes laid to May 1, serving 32,622 premises. There are also 35,629 water meters in service and 48,000 premises are served with water. Plans were approved for four small contracts and the secretary directed to advertise for bids. Mr. Earl reported good progress in all contract work.

One Plumber Is Obliged to Pay for Work Done by Another.

A MR. ROY, of Montreal, Canada, wanted uniform heat of 70 degrees Fahrenheit in his house, and commissioned J. B. Barbeau, a plumber, to install a hot water system to cost $450. When the work was finished Mr. Roy failed to get the 70 degrees, and Mr. Barbeau was called again and again for alterations which did not prove successful. Finally Mr. Roy called in another party and by changing various parts of the system, at the cost of $299, he secured the results he wanted. He then sued Mr. Barbeau for $299 and judgment was given in his favor.

The Latest and Most Sanitary in Bath Tubs

Styles change in bath tubs just as in other furnishings for the house. The change as represented by this latest type of bath, the "Standard" "Recona" pattern, is the direct result of our continued efforts to produce a bath that would represent the last word in sanitation, comfort and convenience.

For many years we have cherished the ambition to some day make an absolutely one-piece porcelain enameled bath tub and to enamel it all over. For manufacturing reasons, either of these accomplishments is a great feat in itself, but we have at last succeeded in doing both, and now offer the first line of one-piece, enameled all over bath tubs ever successfully made, by any manufacturer.

Features of the "Standard" "Recona" Bath

It is made completely in one piece, thus being entirely free from cracks, joints or crevices.

There is no place for dust, dirt or moisture to collect.

It is enameled all over, thus making the outside as permanent, glossy and attractive as the inside.

It builds into the walls and floor, thereby reducing care and cleaning to the minimum. No more reaching and stooping to clean back of and under the tub.

It is lower than the ordinary type of bath tub, yet has better bathing accomodations. It measures only 17½-inches from floor to top and is 17 inches deep inside. Measure the same points in the regular bath tub and you will better appreciate this advantage in the "Recona" bath, particularly for the use of children and elderly folks.

The artistic finish and refined note that the "Recona" bath will give to the bathroom are points of importance as well.

"RECONA"—PLATE P 2180K

"Standard" Porcelain Enameled "Recona" Recess Bath with right hand outlet and 3-inch roll rim; fitted with nickel-plated special concealed "Imperial" bottom bell supply and waste fitting with ¾-inch supply pipe Fuller Valves, china lever handles with indexes and indexed china lever handle waste.

NOTE—Bath as illustrated and described is furnished regularly with one coat of paint on outside.

DIMENSIONS

Depth inside at outlet, 17 inches. Height, bottom of bath to top of rim, 17½ inches

PRICES

	5 feet	5½ feet
Nominal sizes		
Plate P-2180K, with fittings as described	$68.50	$73.50

Standard Sanitary Mfg. Co., General Offices, Pittsburgh, Pa.

OFFICES AND SHOWROOMS

New York.....35-37 W. 31st Street
Boston.....John Hancock Building
Chicago. Karpen Bldg., 900 S. Michigan Ave.
St. Louis.....100-102 North Fourth Street
Philadelphia.....1215 Walnut Street
Washington, D. C.....200 Southern Building
Pittsburgh.....106 Sixth Street
Cleveland.....648-652 Huron Road, S. E.
Toledo, Ohio.....311-321 Erie Street
Cincinnati.....633 Walnut Street
Louisville.....319-323 West Main Street
Nashville.....315-317 Tenth Avenue, So.
Houston, Tex.....Cor. Preston & Smith Sts.
Fort Worth, Tex....Front and Jones Streets
New Orleans...Cor. Baronne & St. Joseph Sts.
San Francisco,..Merchants Nat. Bank Bldg.
Toronto, Can.....59 Richmond Street, E.
Montreal, Can.....215 Coristine Building
Hamilton, Can.....20-28 Jackson Street, W.
London, Eng....57-60 Holborn Viaduct, C. E.

Revised Plumbing Rules and Regulations of New York City.

Interpreted and Illustrated

Thirty-fourth Paper

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RULE 153. That all rising lines have a stop cock or valve at the foot of each line and in all buildings, except dwellings, a separate stop cock or valve must be placed on the branches from riser for each fixture if isolated, or each group of fixtures, such as bathrooms, kitchens, etc., located to be accessible at all times. The diameters of all rising lines must not be less than three-quarters of an inch, but where lead or brass pipe is used the minimum diameters may be one-half inch.

Plate 153 illustrates this rule in that all rising lines have a stop cock or valve at the bottom of the riser immediately after being taken off the horizontal water supply pipe as indicated. Also each branch to one or more fixtures has a valve just as it is taken off main riser. These valves are installed, of course, to get at any separate branch or riser for repairing leaks, etc., without disturbing the other branches or risers.

To the left of illustration is run a cold water riser only, supplying water-closet flush tanks, urinal flush tanks and basins or lavatories.

Where the house service enters cellar through wall we have inserted a valve, and within twelve (12) inches of valve a water meter as indicated.

If meters are larger than one inch a valve must be placed on the outlet side of meter as indicated, in addition to the valve on inlet side.

In setting or resetting 1½ and 2-inch meters, a full size tie must be placed at the outlet between the meter and the outlet valve as shown with a nipple in the tie (and nipper capped where 1½ and 2-inch meters are used).

Meters 6 inches and larger must have this tie with a two (2) inch opening, nipple and valve at end of nipple as illustrated. The placing of these ties and valves is to allow the department to test meters without removing them from the pipes, thus saving expense to consumers.

Rule 154. Diameters of branches to any fixtures must not be less than one-half inch, except when used to supply water closets, cisterns or lavatories, when the material used is lead or brass pipe, the minimum diameter may be three-eighths inch. Branches for flush valves for water closets must not be less than one and one-quarter inch in diameter, and for urinals not less than three-quarters of an inch in diameter.

By referring to Plate 153 you will see branches as noted in the above rule and we are assuming they are of galvanized wrought iron or steel pipe, consequently the smallest diameter is one-half inch or as stated in the above rule, and if of brass or lead a slight reduction in dameter is allowed according to Rule 154.

In reference to flush valves, and their called-for diameter in this rule, we fully illustrated them separately in a previous issue of THE MERCHANT PLUMBER AND FITTER.

Rule 155. Where a hot water supply system is installed, the distance between the hot and cold water risers should not be less than six inches. Where it is impossible to place them six inches or more apart, the hot water riser must be covered with an improved insulating material and a method of circulation provided that will insure a prompt delivery of hot water at the faucet when required.

By referring to the right of illustration, Plate 153, we show a hot water supply system with the hot and cold risers and return circulation pipe placed in a pipe chase amply large so that these pipes are six (6) inches or more apart thereby making it unnecessary to provide insulation as noted in the above rule.

The hot water pipes are indicated by dotted lines. The hot water storage tank is also shown in dotted lines, the cold water inlet entering bottom of tank.

Instead of a steam coil in tank for heating the water a multiple coil steam water heater is used and made in two or more sections as required.

The sections are placed one above the other and owing to the fact that each section has a separate supply of steam to its own coil, gives greater heating power by introducing steam into heater at two or more (depending on size of heater) different points, and the same rule is true of the outlets from coils; each one having its own outlet makes less travel for the condensation in escaping from the steam coils, thus making practically every inch of the coil in each section live heating surface.

The tank is also equipped with a thermostatic regulator which produces a uniform temperature of the water.

The hot water riser is taken directly off top of tank and runs straight up supplying branches on either side. To the left of this hot water riser is the cold water riser, and to the right the return circulation. Both risers are controlled by valves at bottom as indicated, and all branches are also provided with valves.

On the second floor in center we show a shower fitted with an automatic mixer. This device is the only one in the world that absolutely controls the temperature of the water at 70 or 80 degrees lower than that in the storage tank which is usually 180 degrees.

There is only one valve for the bather to use and he is not puzzled with a half dozen valves generally found on a supposedly up-to-date shower.

This mixer, of course, must have hot and cold water and set to deliver water at a temperature of 90 or 100 degrees which is not hot enough to scald any one. By a slight movement of the lever handle of mixer the bather can get cold, luke warm or the 90 or 100 degrees at which it is set. And if for any reason the cold water is suddenly cut off from the mixer, the machine automatically closes the hot water supply and the bather is absolutely prevented from being scalded.

The return circulation pipe is taken from the top of hot water riser and is returned to the tank at bottom as indicated. A return circuit check valve is shown at the bottom, which prevents any backward rush of water when faucets are opened at top of line, thereby always delivering hot water to the entire system of all the time.

Rule 156. All risers and branches must be properly fastened.

In past issues we illustrated pipe hangers and fasteners on soil and waste pipes and the same is applicable in this case.

Rule 157. When the water pressure is not sufficient to supply freely and continuously all fixtures, a house supply tank must be provided of sufficient size to afford an ample supply of water to all fixtures at all times. Such tanks must be supplied from the pressure or by power pumps, as may be necessary; when from the pressure, ball cocks must be used.

Plate 154 presents an illustration of the above required house tank when the street water pressure is either insufficient to supply all the fixtures simultaneously or when power pumps must be used to fill the tank.

If the pressure be very slight but enough to force the water up through the supply pipe and into tank as indicated on the diagram, a ball-cock must be provided to control this supply of water—which cock cuts off the water when the tank has been filled to its proper height.

If power pumps must be used to force the water up and into the house tank of course the ball-cock is omitted. Power pumps may work automatically, if not, the attendant, in pump or engine room in basement or sub-cellar, starts the pump before the tank is empty—being acquainted of the fact by the tell-tale pipe or other means of determining the height of water in house tanks.

Rule 158. House supply tanks must be metal-covered so as to exclude dust and so located as to prevent water contamination by gases and odors from plumbing fixtures.

By looking at Plate 154 you will see the house tank covered—a metal covering. This cover may be of wood substantially constructed and covered with metal. We also show a small removable cover on top of tank. This is generally three (3) feet square or more and allows the engineer or attendant who has charge of the water supply system to readily inspect and examine the water in tank. This tank cover (small) is made accessible by the ladder shown on the right of sketch, Plate 154.

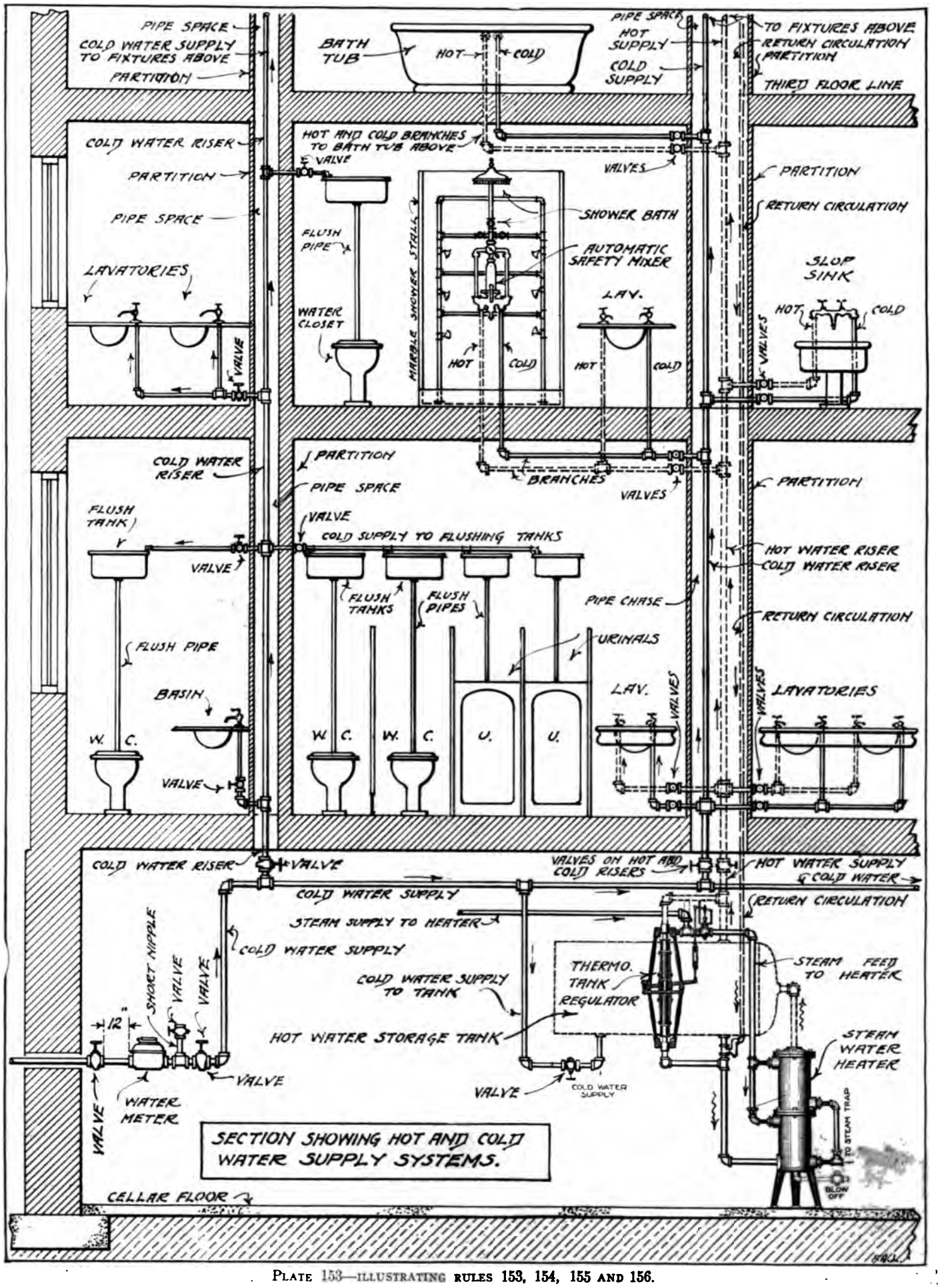


PLATE 153—ILLUSTRATING RULES 153, 154, 155 AND 156.

The main reason for the house tank being covered is to exclude the gases which are bound to arise from the plumbing system.

An architect with sanitary qualifications, or, if he be too busy to take care of this very important part of a building, his sanitary engineer should, and he generally does, keep the house tank far enough away from the main soil and waste lines where they rise above coping of roof parapet wall.

As a general rule you will find house tanks located many feet above the roof of the building which they supply (the supporting of which tank will be shown

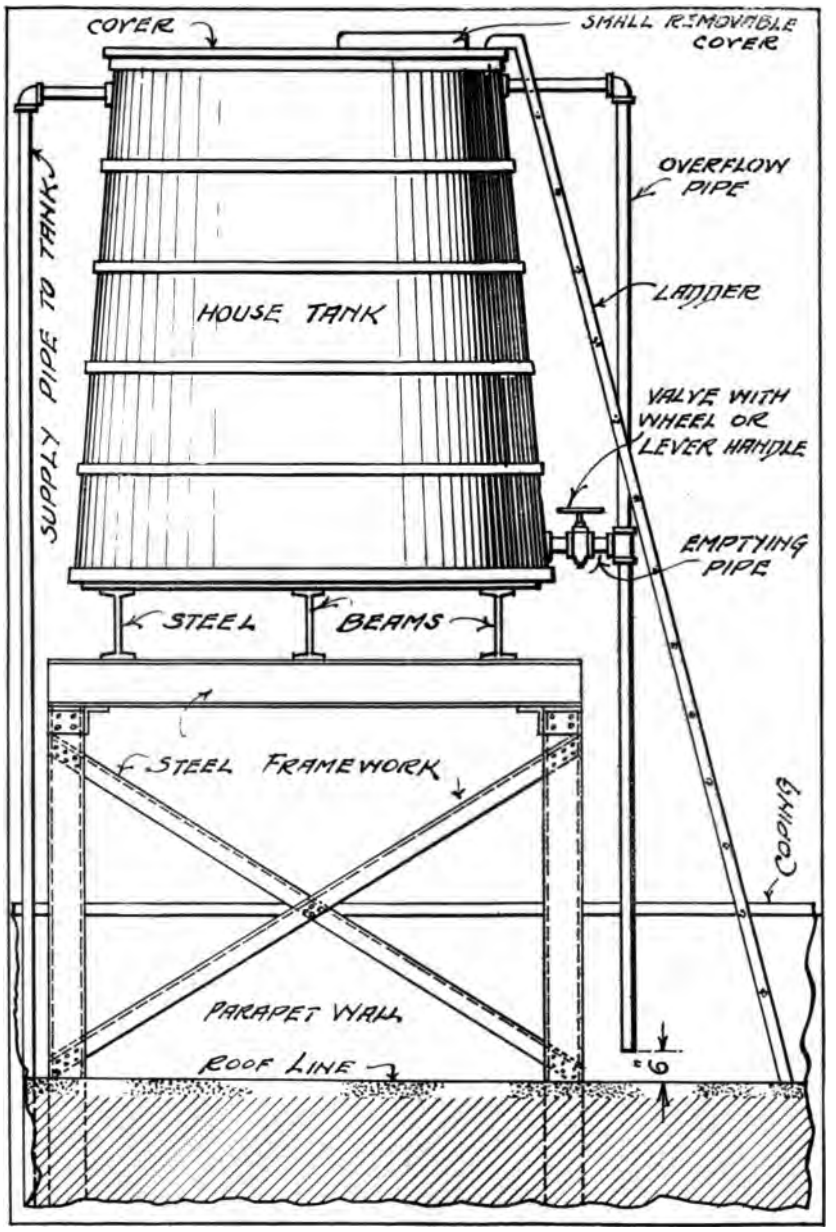


PLATE 154—ILLUSTRATING RULES 157, 158, 159, 160, 161 AND 162.

shortly) and it is not only good from the "pressure" side of the question but the "contamination" side as well. By keeping our house tanks far above the roof, as shown in illustration, we will largely overcome the contamination which would follow if we had our house tanks not only on a level with but close to a soil stack.

Rule 159. House supply tanks must be of wood or iron, or wood lined with tinned and planished copper.

The tank we show on Plate 154 is of wood, constructed of substantial and thick stays, and bound together with bands of steel; this, indeed, gives very satisfactory results. Tanks constructed of iron may be had from dealers whose speciality is supplying them in sections, they claiming the assembling of the tank, no matter what the size, is easily accomplished.

Tanks of wood and lined with tinned and planished copper will be found largely in buildings of old construction but "modern" equipment and the tank generally inside the building or "attic." Where there is not an attic—for instance, the old-time five or six-story city stone mansions—we almost invariably find this inside house supply tank built in the water-closet compartment on the top floor and this closet has not even a window opening to the outside atmosphere, but instead a skylight which is closed 10 or more months in the year. We should be careful about our house tanks.

Rule 160. House tanks must be supported on iron beams.

We show on Plate 154 the house tank, high above the roof and the I-beams directly supporting the tanks, held in position by framework of steel, these steel columns, girders, braces, etc.. being an integral part of the steel framework of the building.

Rule 161. The overflow pipe should discharge upon the roof, where possible, and in such cases should be brought down to within six inches of the roof, or it must be trapped and discharged over an open and water-supplied sink not in the same room, not over three and one-half feet above the floor.

In no case shall the overflow be connected with any part of the plumbing system. By referring to Plate 154 you will see the overflow pipe connection as described or called for in the above rule. We branch out just below top of tank or just exactly where we wish to carry the overflow water line and then drop directly down to within 6 inches of the roof. We will describe the emptying pipe in the following interpretation under the next rule.

Rule 162. Emptying pipes for such tanks must be provided and be discharged in the manner required for overflow pipes, and be branched into overflow pipes. Emptying pipes for tanks containing more than 500 gallons must be four inches in diameter and provided with a valve of same size and fitted with a wheel or lever handle.

Again referring to Plate 154, we show the emptying pipe located at lower right hand corner of sketch and branched into the overflow pipe which runs down perpendicularly to within six (6) inches of the roof. As stated in the previous rule (161) we may discharge into an inside sink, providing it is trapped, not more than three feet six inches above the floor and water supplied, and we are allowed to discharge our emptying pipe in the same manner.

We will rarely find a house tank whose capacity is five hundred (500) gallons or more discharging its emptying or overflow pipe into a sink, but similarly, as shown on sketch plate 154.

As stated in Rule 162, should the capacity of the house supply tank be or exceed five hundred (500) gallons the emptying pipe as we show it on illustration, Plate 154, must be four (4) inches in diameter and the valve must be the same size.

As the opening and closing of this rather large valve would require quite some strength, we must provide either a wheel of 6 or 8 inches in diameter or a lever handle to operate the valve.

The Eastern Supply Association Votes on Referendum Nos. 2 and 3.

RECENTLY the Chamber of Commerce of the United States of America, Washington, D. C., requested the Eastern Supply Association to vote on the following propositions:

Referendum No. 2.—On the question of establishing a permanent tariff commission.

Referendum No. 3.—On the question of placing on the appropriation for enforcement of anti-trust laws a prohibition of its use for the prosecution of labor and agricultural combinations.

The result showed a unanimous vote by the association in favor of a Tariff Commission, and a unanimous vote against exempting any class from the provisions of the Sherman Anti-Trust Law.

APPROVED BY THE PHILADELPHIA BOARD OF HEALTH.

"IXL" Anti-Freezing Closets

Plate 4-IXL—With Pit.

Plate 58-IXL—D. S. Hopper Valve.

Plate 11-IXL—Seat Action Closet.

Plate 42-IXL—Automatic Tank.

CAN BE INSTALLED QUICKLY

Simply constructed; nothing inside of tank but the overflow pipe; no washers, only ½ in. on hopper valve. Lowest priced and most efficient on the market.

IN USE OVER 8 YEARS

Gives no trouble. No cups, rings or special washers used in their construction. Water Savers.

SOLD BY ALL JOBBERS

Our goods are built to stand hard usage; if that is the kind you are looking for we will be glad to hear from you. Get the best, and do not be led astray by others "Just as good."

A FEW OF OUR SPECIALTIES

"IXL" Sewage Ejectors. Cellar Drainers. Water Lifts. Water Systems. Water Air Compressors. Belt or Electric Driven Air Compressors. Beer Pumps. Factory or Mill Closets. Seat Action Closets High and Low Down. Pull Combinations High and Low Down. Automatic Syphon Tanks 1¼ to 2½ Syphon. Urinal Sprays. Compound Air and Water Regulators. High Tank Anti-Freezing Combinations. Hopper Valves (Spring or Weight). Compound Lever Ball Cocks. Valve Rests. Air Chambers. Pitless Hopper Valves.
We guarantee them in every respect. Send for Catalogue.

"IXL" PUMP and MFG. CO.

Patentees and Makers

957-59-61 N. Ninth Street and 958-60-62 N. Darien Street
PHILADELPHIA, PA.

Plate 60-IXL—Without Pit.

Plate 62-IXL—Pitless Valve.

Plate 53-IXL—Foot Action Closet.

Plate 10-IXL—Ball Cock Bottom Supply.

Combined Steam and Hot Water Heating System.

By W. H. DUSENBURY.

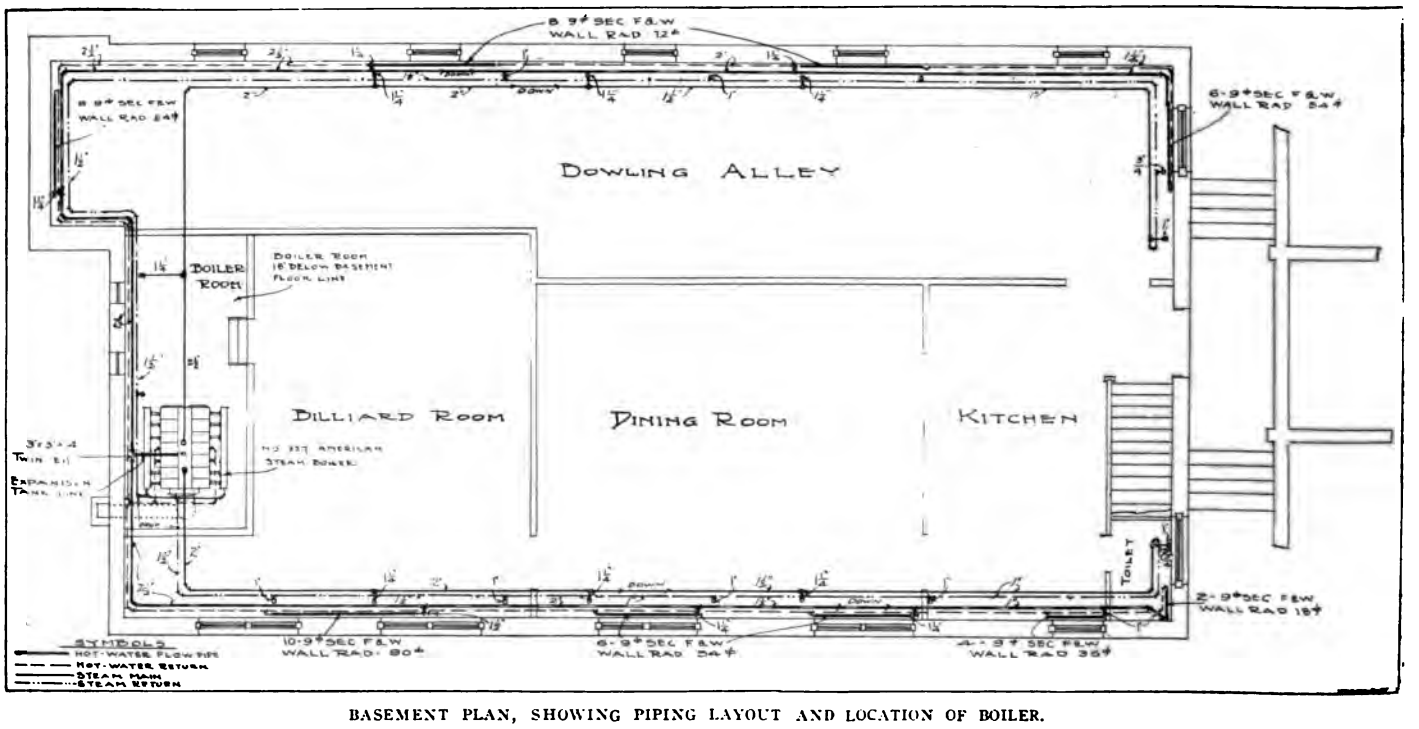
A VERY interesting combination of steam and hot water heating is to be found at the Bethel Congregational Parish House, Bethell, Conn. The building is one story high and consists of an auditorium on the first floor, which is heated by a two-pipe low pressure steam system, the bowling alley, dining room, billiard room and kitchen in the basement being heated by means of a down-feed hot water system.

The combining of these two systems in one building was due to the fact that the basement, which contains rooms that requires to be heated continuously during the winter season, and hot water heating is the most economical under these conditions, while the first floor which is used as an auditorium does not require to be heated continuously, being only used occasionally, for three or four hours at a time, for this condition steam is more adaptable.

Both the steam and hot water is generated from the same boiler which is so arranged and piped that the hot water system can be operated independently of the steam system, or they may be both used together. A system of this kind requires a sectional steam boiler of the "Header" type so as to have each section independnt of the other and equipped with all the necessary steam trimmings, together with an altitude gauge and thermometer. The size of the boiler was obtained with the following proportions, between the heating and radiating surface: Heating surface in contact with fire one square foot to 40 square feet of radiation, in addition to this there is a reserve capacity in the heating system sufficient to meet the demand of a period of extremely severe weather, the total amount of steam radiation is 576 square feet, the total of hot water radiation 504 square feet.

BOILER.

The boiler is a number 327 American Sectional steam boiler, manufactured by Pierce, Butler & Pierce Mfg. Co., having a rated capacity of 2100 square feet of heating surface, and consisting of seven sections, five of these, namely, sections 1, 2, 5, 6, 7, are used to generate steam and are connected to a top steam "Header," and two side return "Headers," by means of screw nipples 12 inches long, so as to allow sufficient space for the hot water connections to the boiler. From the two outlets on the top steam "Header" a 2 inch and 2½ inch steam mains are taken off to supply the radiation in the auditorium. The returns from this radiation are connected into the return steam "Headers" which in turn are connected together by a 2-inch equalizing pipe. The two hot water sections of the boiler, sections 3 and 4, are entirely independent of the steam sections of the boiler and are connected to the hot water system as follows: The 3-inch outlets from the top of each section are connected together into a 4-inch pipe by a 3 by 3 by 4 inch tee this pipe is then carried to the highest point in the system and branched in opposite directions by a 3 by 3 by 4 inch twin ell to supply the radiation



BASEMENT PLAN, SHOWING PIPING LAYOUT AND LOCATION OF BOILER.

McMann & Taylor Co.

Wrought and Cast Iron Pipe and Boiler Tubes, Brass and Iron Valves, Etc. Steam Specialties

Plumbers', Gas and Steam Fitters' Supplies

PIPE CUTTING AND MACHINE SHOPS

SALES AGENTS FOR

Eddy Gate Valves and Hydrants

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104 and 106 John St., N. Y.

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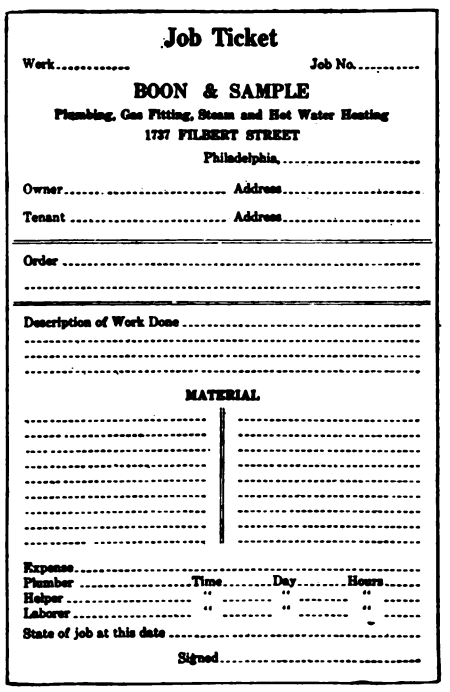
Job Ticket

Work..... Job No.....

BOON & SAMPLE

Plumbing, Gas Fitting, Steam and Hot Water Heating

1737 FILBERT STREET

Philadelphia,.....

Owner..... Address.....

Tenant..... Address.....

Order.....

Description of Work Done.....

MATERIAL

Expense.....

Plumber.....Time.....Day.....Hours.....

Helper..... " ..... " ..... " .....

Laborer..... " ..... " ..... " .....

State of job at this date.....

Signed.....

Do your workmen wait until the end of the week and charge up the whole week's work at one time?

Or do you use *our* Plumbers' Job Tickets, designed by our Mr. Fink, which compel the workmen to charge up daily all the time and material used on jobbing work?

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ENERGETIC PRINTING COMPANY

Wesley A. Fink, Prop.

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44 N. Fourth Street PHILADELPHIA, PA.

The seat that you will eventually buy—

The "*Union*"

TRADE M. P. BERGLAS MFG. CO. BROOKLYN, N.Y. MARK

Never Breaks

Guaranteed for 10 years

Only wood used in construction

Our Union Guaranteed Seat is put together with ⅝-inch wood dowels glued in and passing through the entire width of front and back pieces, and extending on either side two inches beyond the tongue and groove joints. On either side of these four joints the seat is bored, tapping the ⅝-inch dowels and passing through same and ¼ of an inch beyond, through which ¼-inch glued dowels are forced, the close proximity of which absolutely prevents any variation from contraction or expansion under any test that same may be put to.

Send for Circular

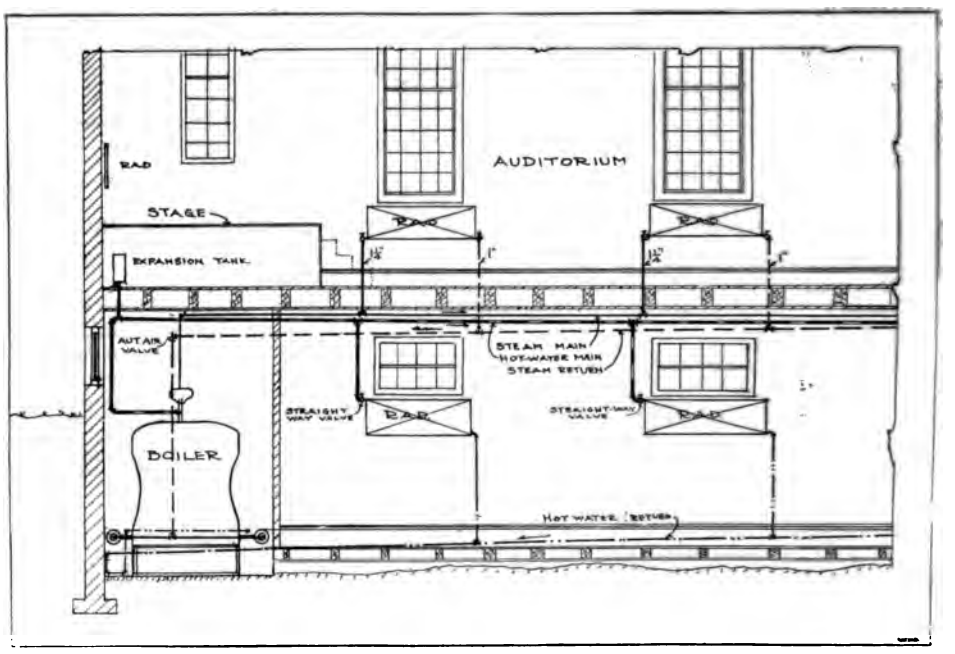
THE M. P. BERGLAS MFG. CO., FULTON AND FURMAN STREETS Brooklyn, N. Y.

in the basement. The returns from this radiation are connected into the bottom of the hot water sections by means of two 2½-inch pipes run on both sides of the boiler on top of the nipples which connect the return "Headers" to the steam sections. This pipe is then reduced by a 3 by 3 by 2 inch reducing tee and enters each section at 2 inches as shown in accompanying drawing. The outlets on the top and two side "Headers" that are directly opposite the two sections used to generate hot water are plugged. The boiler is placed in the rear of the building as shown in the accompanying basement plan, and is 18 inches below the floor line of the basement.

The basement is heated by means of a down feed hot water system; in this method of heating the flow pipe is at once taken to the highest point in the system for distribution; at this point the expansion line is taken off the expansion tank being located under the stage in the auditorium, the radiators are fed by the fall of water due to the cooling action in the radiators. This system requires no air valves on the radiators, as all the air escapes through the expansion tank, also the end of each flow main is equipped with a pet cock.

By referring to the basement plan it will be observed that the main flow pipe from the two hot water sections is connected with a 4-inch pipe, and in turn with a 3 by 3 by 4 inch twin ell which separate the flow pipes to each side of the basement; the twin ell is the highest point in the system. From this point the inclination is one inch in every ten feet away from the boiler to the furthest of supply.

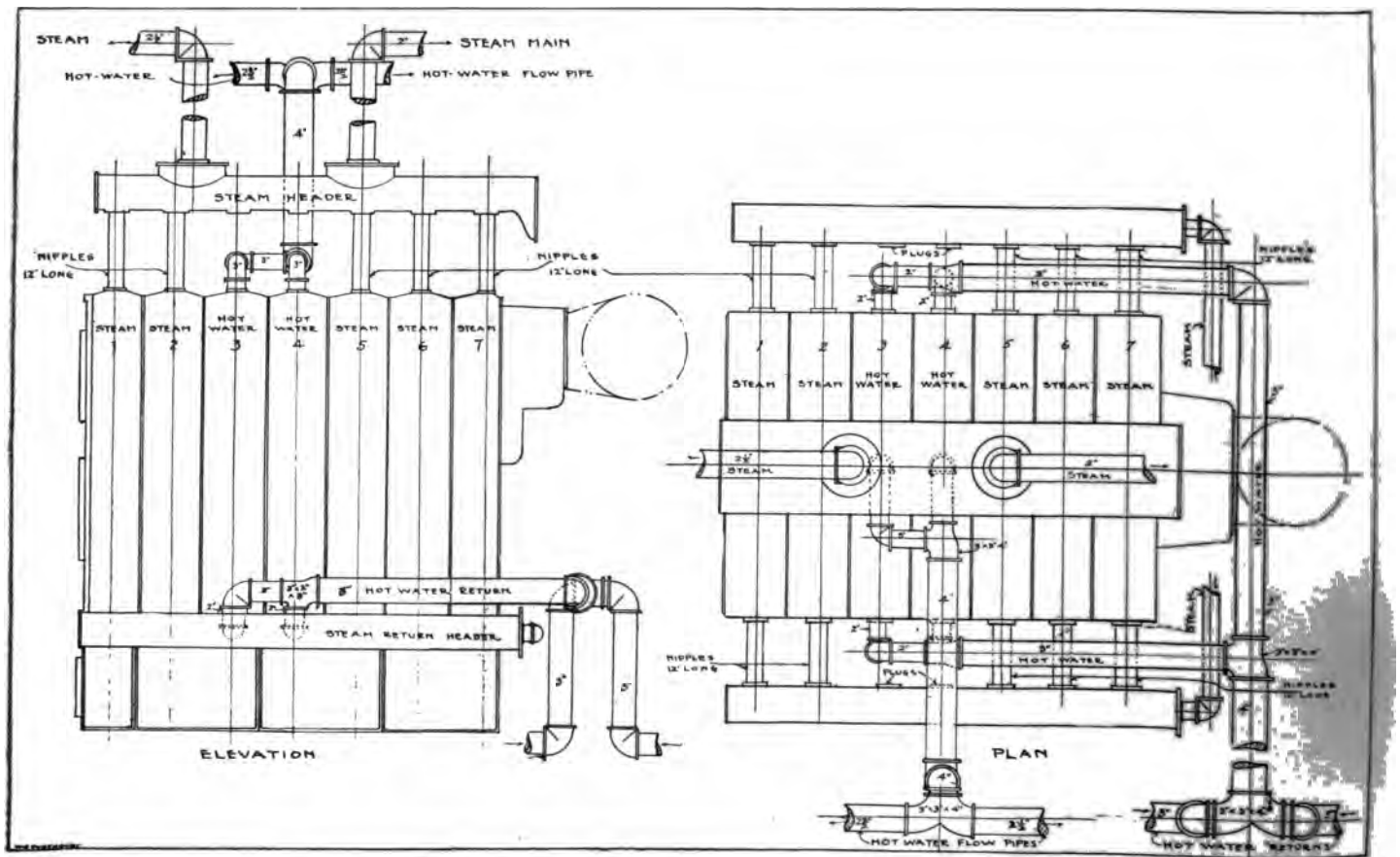
We will now follow the 2½-inch flow



SECTIONAL VIEW, SHOWING PIPING ARRANGEMENT.

pipe that supplies the radiators in the bowling alley. This pipe is reduced to 2 inches after the first connection is taken off and continued this size to the last radiator, and following the pipe which runs the opposite side supplying the radiators in the billiard room, dining room, kitchen and toilet is reduced to 2 inches after the first radiator connections, then to 1½ inch to 1 inch for the last radiator.

The returns from the radiators is increased in the same proportion starting from the end radiator to the boiler, and are pitched in opposite direction; in other words, the drainage is towards the boiler, the returns are run under the floors and are connected to the boiler as stated above. All radiator branches are taken off the side of the main and feed into the top of the radiator which is controlled by a straight way gate valve. The return connections are taken off the opposite end. All radiators are of the Fowler & Wolf, wall radiation type, assembled in vertical form, one series high, each section containing nine (9) square feet of heating surface, and



METHOD OF ARRANGING BOILER AND PIPING CONNECTIONS.

PECK'S SYPHON VALVES

are made of the highest grade brass, with *cast parts.* Each valve is carefully tested and is absolutely guaranteed to be free from blow-holes, sand-holes, and similar defects. These valves will operate any type of high tank closets. Note the *Direct Syphon on both valves* and *special four post guide on No. 6 Valve.*

Booklet of Syphon Valves and Ball Cocks will be sent upon request.

The Peck Bros. & Company

127 Chestnut Street
New Haven, Conn.

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The CONTINENTAL FILTER

The standard for high-class residence installation for the past quarter century

BECAUSE

it combines these important features:

1. **DOUBLE FILTRATION**
   First through sand, then through bone-charcoal.
2. **SLOW FILTRATION**
   Obtained by a large filtering area.
3. **THOROUGH FILTRATION**
   Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. **SIMPLICITY OF OPERATION**
   Each cylinder controlled by a single valve, making no expert care necessary.
5. **AUTOMATIC AERATING DEVICE**
   By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.

The New York Continental Jewell Filtration Co.

15 BROAD STREET, NEW YORK

located on the outside wall under window about 18 inches from the floor.

SCHEDULE OF HOT WATER RADIATION.

Rooms.	Number rad.	Wall rad.	Sq. ft. heating.
Bowling alley..	"1"	6 9-ft. sections..	54
Bowling alley..	"1"	6 9-ft. " ..	54
Bowling alley..	"1"	8 9-ft. " ..	72
Bowling alley..	"1"	8 9-ft. " ..	72
Billiard room..	"1"	10 9-ft. " ..	90
Dining room...	"1"	6 9-ft. " ..	54
Dining room...	"1"	6 9-ft. " ..	54
Kitchen	"1"	4 9-ft. " ..	36
Toilet	"1"	2 9-ft. " ..	18
Total rad.....	"9"	Total....	504

STEAM HEATING SYSTEM.

The auditorium is heated by means of a two-pipe low pressure steam system, in this method of piping there are two connections to every radiator. The mains are taken off the top steam header of the boiler to the highest point under the basement ceiling, then run horizontally to both sides of the building to supply the radiation in the auditorium and pitched downward about one inch in ever ten feet. By referring to the basement plan it will be seen that the 2-inch and 2½-inch steam mains are gradually reduced as the branches are taken off; where the reduction is made the branches are taken off from the under side of the mains; all other branches are taken off the top and pitched downward to the foot of the riser. A return riser is connected to each radiator, carried to the basement and connected to the main return pipe. These return connections are one size less than the supply connections. The main return pipe is also one size less than the steam main, and is run directly under the steam main, pitching towards the boiler.

The radiators in this system are controlled by valves on both the supply and return ends, all the steam radiators in the auditorium are of the Fowler & Wolf wall radiation type, assembled in vertical form, one series high, each section containing nine square feet of heating surface, and located on the outside walls under the windows, about 18 inches from the floor.

This job was installed by the Bethel Garage & Plumbing Co., of Bethel, Conn., and operated all last winter with good results.

SCHEDULE OF STEAM RADIATION.

Room.	Number rad.		Sq. ft. heating.
Auditorium ..	7	8 9-ft. sections, 72 in. each.	504
Auditorium ..	2	4 9-ft. sections, 36 in. each.	72
Total rad..	9	Total..	576

Specifications for Plumbing, Fixtures, Etc.

Prepared by the Board on Uniform Plumbing Specifications for the Treasury, War and Navy Departments

Hot-Water Tanks — Horizontal (Plate No. 44).

TANK No. 18 H to be 18 inches diameter by 5 feet long without steam heating coil.

Tank No. 18 HP to be 18 inches diameter by 5 feet long with steam heating coil.

Tank No. 24 H to be 24 inches diameter by 7 feet long without steam heating coil.

Tank No. 24 HP to be 24 inches diameter by 7 feet long with steam heating coil.

Tank No. 36 H to be 36 inches diameter by 8 feet long without steam heating coil.

Tank No. 36 HP to be 36 inches diameter by 8 feet long with steam heating coil.

All tanks to be constructed of galvanized iron or steel, having reinforced openings of sizes shown. Each tank to have a 3¼ by 4½-inch hand-hole, provided with plate, yoke and gasket, and be properly supported near ceiling.

Tanks "P" to be provided with steam heating coils constructed of No. 16 B & S gauge, seamless discontinued copper tubing with inlets at top and outlets at bottom.

Each tank to be provided with ¾-inch diameter lever pattern, brass safety valve or water relief valve, set 25 pounds above high water pressure. Also ¾-inch angle pattern, hot water mercury thermometer graduated from 40° to 240°.

Regulator.—Each tank connected to a coal-burning heater to be provided with a thermostatic regulator with necessary chains and pulleys to operate the draft door and check draft on heater, adjusted so as to close draft door and open check draft when temperature of water is 140° in tank.

Each tank containing a steam coil to be provided with a thermostatic regulator with necessary connections and valve to control the steam supply to the coil, adjusted so as to close steam valve when temperature of water is 140 degrees in the tank.

Regulator to be inserted in head of tank, to consist of a tube with necessary attachments containing a volatile liquid or an expanding tube containing a non-expanding member the expansion or contraction of which will operate valves direct or control the water supply to operate the valve on steam line leading to coil in tank.

Either type of regulator will be acceptable, viz., one that controls the steam supply to coil and operates the draft dampers, or type that requires regulator for steam valve to coil with an independent regulator to control the dampers on heater.

All connections must be made to suit type of regulator used and in event valve is operated by water pressure necessary pipe and valve connections to building supply and waste discharged into sink.

OUTFITS.

With steam coil—

No. 18 HP.—18 inches diameter by 5 feet long.

No. 24 HP.—24 inches diameter by 7 feet long.

No. 36 HP.—36 inches diameter by 8 feet long.

Without steam coil—

No. 18 H.—18 inches diameter by 5 feet long.

No. 24 H.—24 inches diameter by 7 feet long.

No. 36 H.—36 inches diameter by 8 feet long.

Plumbing Permits Show Increase in Building at Orange, Cal.

SOME idea of the building advancement which Orange, Cal., is at present enjoying may be gathered from the statistics of various city officers, such as sewer connections, plumbing inspections and other lines which come under municipal supervision.

In the matter of sewer connections the sewer inspector's report shows that permits were issued for 544 connections. On this number, 500 are at present in actual use. The water connections show an equal increase and everything points to rapid building advancement.

A line on the number of new houses is obtained from the plumbing inspector's report, covering inspections since Dec. 1, 1911. Since that date there has been a total of 300 plumbing inspections, of which 70 are known to be new houses. In addition, there are a number of other new dwellings just finished or in the course of erection which would swell the list.

The building goes steadily onward each month adding to its quota of new permits.

GENUINE ARMSTRONG STOCKS and DIES

MALLEABLE IRON HINGED PIPE VISES
PIPE CUTTERS

PIPE THREADING and CUTTING OFF MACHINES

BOTH HAND AND POWER

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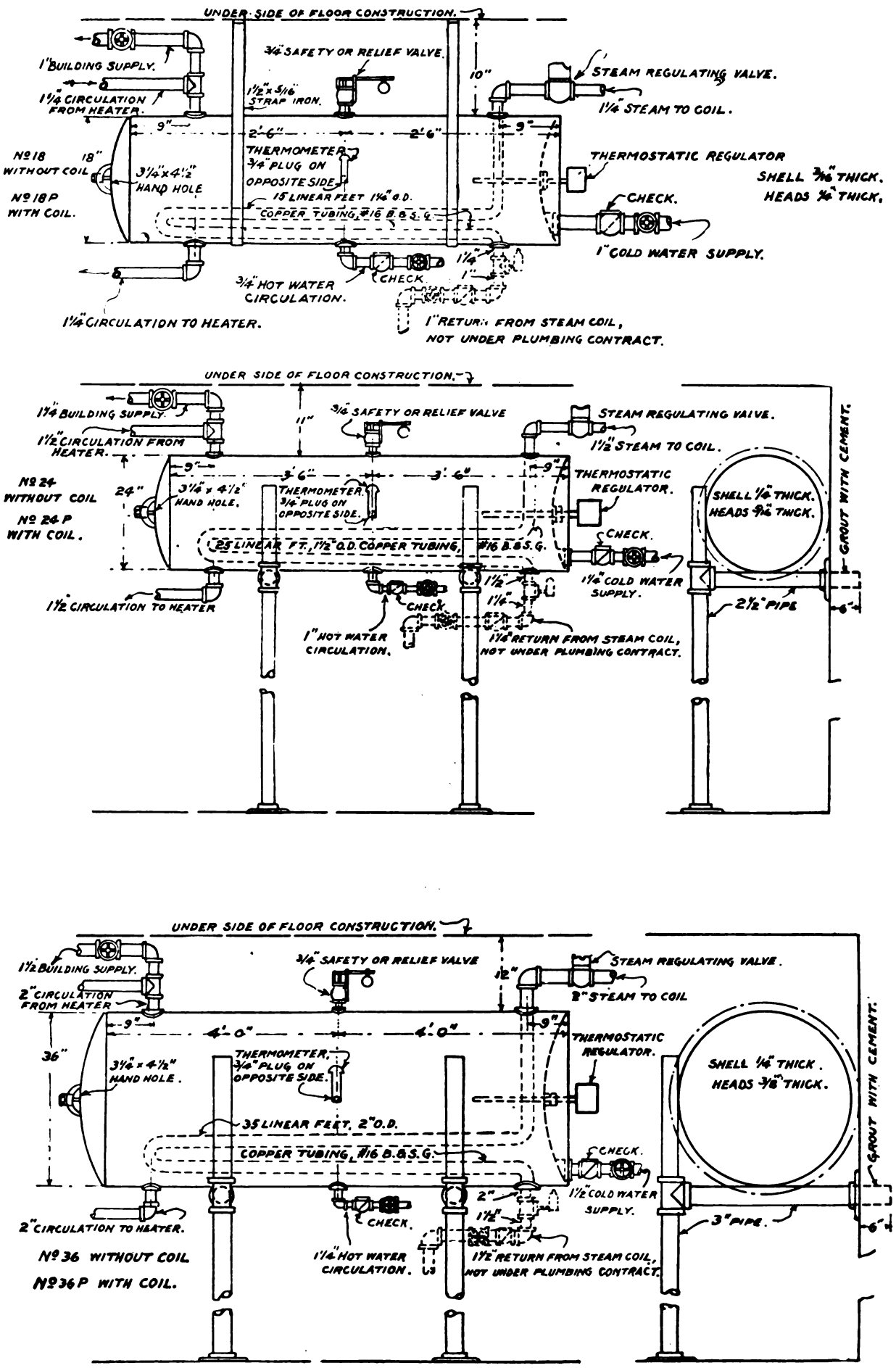
The Armstrong Manufacturing Co.

325 Knowlton Street, Bridgeport, Conn.

NEW YORK *Catalog mailed on request.* CHICAGO



GOVERNMENT SPECIFICATIONS—PLATE 44

The American Society of Inspectors of Plumbing and Sanitary Engineers Meets in Louisville, Ky.

THE eighth annual convention of the American Society of Inspectors of Plumbing and Sanitary Engineers was held at the Hotel Seelbach, Louisville, Ky., May 20, 21 and 22, with an enthusiasm which showed the growing popularity of the society.

The convention was called to order at 10 o'clock Tuesday morning by President Thomas J. Claffy. Secretary L. J. Lawler read the minutes of the last meeting, and then read his annual report as secretary-treaturer in part as follows:

The correspondence for the year numbered approximately 2,000 pieces. I was in almost daily communication with the president and in constant touch with the chairman of the standing committees; also upon request of the different members sent out letters to members of the legislative bodies of the different States in reference to plumbing codes.

There have been 30 applicants for membership and three resignations received, the chief cause of resigning being given as inability to attend our annual meeting or change of position.

Invitations for the 1914 meeting have been received from nine cities, and for the 1915 meeting from almost every city on the Pacific Coast.

The financial affairs of the society are in a good condition, summary of same being as follows:

Receipts, including $31 for sale of 1912 proceeding, amounted to $662.38.

Disbursements, $379.95.

Balance on hand, $295.05.

The society has a membership of 182, all of whom are deeply interested in sanitary science in its relations to public health, and may be classified as follows:

Doctors of medicine, 7.

Members of university engineering staffs, 6.

Designers of sanitary ware and fixtures, 14.

Members editorial staff of trade journals, 3.

Practical plumbers who are or have been inspectors of plumbing, both in design and installation, 152.

In closing, I wish to thank the membership generally for its interest in the society and for the prompt response to the yearly statements of the financial standing;

Harry de Joannis, western manager of *Metal Worker, Plumber and Steam Fitter*, for his untiring efforts on behalf of the society, as chairman of the committee of research;

Frank K. Chew, editor of *Metal Worker, Plumber and Steam Fitter*, for his valuable assistance as a member of the committee of publication, especially during the time of the preparation of the proceedings;

Finally, to the one to whom I attribute more than to any other one man the success of the society; one who is and has been ever willing to sacrifice his time and render to this society the value of his years, experience and knowledge of the plumbing profession, setting aside all selfish interests and worldly gain, in order that proper legislation might be enacted for the benefit of humanity—Thomas J. Claffy, our president.

President Claffy appointed Edward Quinn, W. H. Jermish and E. P. McKay as the auditing committee. Frank K. Chew then presented his report on "Comfort Stations," as follows:

Since the last meeting of the society great interest has been taken in the use of the comfort station mark adopted by the society, and it has been brought to the attention of a multitude of people who have shown their appreciation of its service by a surprisingly prompt understanding of its meaning and use of the sanitary conveniences to which it led them. During Old Home Week in Wilmington, Del., our fellow member, E. P. McKay, erected temporary comfort stations in the streets and used our mark to direct people to them.

A much larger number of people profited from their significance through their use by our member, A. R. McGonegal, in Washington, D. C., during inauguration week this year in seven temporary stations and troop privies. Thousands of people used these conveniences and quickly understood the meaning of the green circle and orange-colored four-pointed star when seen a block or two from the comfort station and directing people to them.

In Pasadena, Cal., where A. C. Shaver put into operation the ideas presented in a paper read at the Trenton meeting by Frank K. Chew, the society's mark as perfected by these two members, and adopted by the society, has been used in connection with two new women's rest rooms and comfort stations. These buildings are in two public parks and are in daily use by thousands of women.

The mark has made the use of comfort stations more convenient to the public and the work of the society has been productive of a wide demand for comfort stations in the smaller as well as the larger

PRESIDENT T. J. CLAFFY.

cities. Reports have been made by various members of plans and appropriations of money for the erection of such stations in several cities. The influence of the society in this field alone justifies all the energy that has been expended in carrying to its present stage of usefulness to the public, and the committee is cognizant of the fact that this is but one of its activities that is sure to add to its prestige for important service.

At the request of President Claffy the duties of reading clerk were discharged by Frank K. Chew.

A communication was received from James Smith, president of the Canadian Institute of Sanitary Plumbers, thanking President Claffy for the interest he has taken in his association, and stated that any suggestions would be welcomed by the Canadian Institute that would further the cause of sanitary and scientific plumbing.

Vice-President William J. Yaekley, of Dayton, O., was unable to be present at the meeting and expressed his regrets. In his letter he gave a description of the sanitary conditions of Dayton after the flood, from which we publish an extract:

As soon as the government took charge of the city Mayor T. L. Rhodes, who is in charge of sanitation, instructed me to secure 16 deputy inspectors and have them make a house to house inspection of the sanitary conditions in the flooded districts, and he would pay them out of the national treasury.

I secured 16 practical mechanics and gave them instructions accordingly, and in their investigations throughout the flooded districts discovered 3,448 privy vaults which had been washed out (a *mighty good thing* for the health of Dayton). This is a large number of vaults to have in a city the size of Dayton, but at the same time this department has done a great deal in the last two years to eliminate the privy vault and cesspools.

Since my appointment to the position of plumbing inspector, with one assistant to help in the work, we have been directly responsible for the elimination of cesspools and privy vaults to this extent:

During the year 1909, 1,161; year 1910, 1,074; year 1911, 1,674; year 1912, 1,646; making a grand total of 5,555 during the four years of my office, which is a pretty good record for two men in connection with our other work of inspection of plumbing installation.

The city officials and the city council have now taken notice of the importance of our work and have promised us additional assistance, but as the city is practically bankrupt for finances I am at a loss to know how it will be done.

The board of health has promised me that from now on no privy vault or cesspool will be allowed in any sewer district, and all vaults that have been in the sewer districts, no matter if in the flood or not, will be abandoned without fail and sewer connections made. This is one of the good things that the flood has accomplished, at any rate.

Letters were also read from Commissioner J. D. Allin, Pasadena, Cal.; T. R. Deacon, Winnipeg, Man.; R. P. Miller, Building Department, New York City; Mayor R P. Broderick, San Francisco, Cal.; Health Commissioner J. E. Crichton, Seattle, Wash.; Secretary Mark W. Richardson, Health Board, Boston, Mass.; Secretary C. E. Ford, Health Board, Cleveland, O.; A. C. Weitzel, Omaha, Nebr.; Commissioner Leo Menten, Oklahoma City; City Engineer C. H. Rust, Victoria, B. C., and Lloyd B. Christy, Mayor of Phoenix, Ariz.

Edward Quinn reported for the auditing committee that all bills were paid, the books correct and a balance of $295 in the treasury.

A paper by H. L. Alt on the "Need of a National Plumbing Code" was read by Harry de Joannis and was freely commented on by L. A. Cornelius, Edward Quinn and John Kelly. President Claffy suggested that the subject could be better discussed when the report of the directors had been heard, and further discussion was therefore postponed.

The president appointed the following committee on resolutions: George J. Dehn, George Stolz, John Fowler, G. J. Cloutier and L. A. Cornelius.

The committee on convention city as follows: John S. Kelly, George Stolz, James McGrath, John P. Freeman and L. A. Williamson.

COLWELL LEAD COMPANY

Manufacturers and Jobbers of

Lead Goods and Plumbing Supplies

BRONX BRANCH
3103 Third Avenue

Lafayette and Walker Sts.
NEW YORK

BROOKLYN BRANCH
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DETROIT, MICH. WINDSOR, CANADA

L. & K. Valve.

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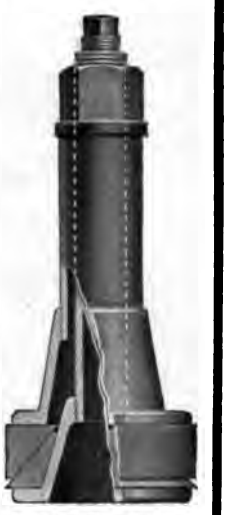
Testing Valves and Plug

Patented September 6, 1898
No. 610,452

THE DEVICES herein illustrated have been invented and perfected by a plumber for the plumber—more particularly for the up-to-date plumber, who does a job to be a job. And as the proof of the pudding is in the eating, so the wind-up of a plumbing job should always be a thorough test of all the joints before the work is accepted.



L. & K. Test Plug.

The architect usually insists on such a test, and the plumber goes to an immense amount of labor and expense to convince him that the work is O. K.

But why should there be this expense to accomplish that?

No pressure test can be made unless all the outlets are effectively stopped, and there is where the expense "comes in" unless you chance to have in your equipment of tools a set of L. & K. TEST PLUGS AND VALVES.

Send for Booklet giving full description.

JOHN SIMMONS COMPANY

110 Centre Street, 48 East 41st Street, NEW YORK. Bush Terminal, BROOKLYN

MEMBERS AND FRIENDS OF AMERICAN SOCIETY OF INSPECTORS OF PLUMBING AND SANITARY ENGINEERS

President Claffy then read his address:

We are assembled here to-day in the ninth annual convention of this sturdy young society, and to render an account of our stewardship, and to discuss questions in relation to sanitation, that we may in the light of our experiences and knowledge thus gained, fill with greater efficiency the positions which we assume in public service.

Our struggle for existence has been much the same as that of other organizations, with perhaps more of sunshine than falls to the lot of the average young society. This is due mainly to the wisdom of the founders of this organization and to the tact and common sense of its officers in the years of inception.

Business transactions have been conducted with economy and despatch; credit maintained and membership increased.

The position of this society in the field of sanitary science is becoming more evident by reason of its effect upon legislation, plumbing design and installation, sewage disposal, and even in ventilation, which hertofore has been considered in connection with mechanical engineering.

A bill has been introduced in the legislature of New York concerning anti-siphon traps which require, as a test of their qualities, that which has been set forth in the proceedings of this society in 1907.

Your officers have been called upon for assistance in drafting ordinances, for opinions in methods of plumbing design and as experts in matters of litigation.

The widespread movement against the use of the common drinking cup and the installation of latrines has been largely aided by the action of this society. Other accomplishments are matters of history.

The things which should receive our close attention are those which seem most likely to increase our efficiency, to lift us to a higher plane, and to concentrate interest in us and in our ideals.

Our attention will be fixed for a time at least upon the report submitted by the committee of research. It points out a field of useful endeavor practically without limitation, and so broad and deep that even the least of us can find therein something to fit our capacity, our energy and our sphere. It opens to us a field which gives us the opportunity to do things. It is to be hoped that our success will have its inception here to-day.

The education of plumbers' apprentices in the elements of sanitary science is well worthy the best efforts of those in a position to lend assistance. That there has been a woful lack of such education is too true; that it should continue so is nothing less than criminal ignorance and carelessness, and that we should assist in bringing about such education is obvious. A start has been made in Chicago through the co-operation of journeymen and master plumbers and the board of education. It is a pronounced success. The boys are deeply interested and have shown keener interest and appreciation than apprentices in other trades.

The formation of State chapters of this society should be brought under way as soon as possible for the stimulation of interest and greater benefit. A quarterly meeting of each such chapter would do much to concentrate effort, to maintain solidity, and to keep our society abreast of the times.

A suggestion offered by one of our live members is so good that I will submit it as it is:

"In my dual work as western manager of the *Metal Worker, Plumber and Steam Fitter,* and as chairman of the committee on research of the American Society of Inspectors of Plumbing and Sanitary Engineers, I have become strongly impressed with several facts which lead to a definite suggestion worthy of consideration by our society and yourself as its president.

AT ANNUAL CONVENTION AT LOUISVILLE, KY., TUESDAY, WEDNESDAY AND THURSDAY, MAY 20, 21 AND 22.

"Fact 1. The desire for national sanitation is being daily felt with greater consciousness by the individuals composing the nation.

"Fact 2. This sanitary desire crystalizes steadily with increasing frequency in the form of the passage of State and municipal laws governing sanitary installations and the appointment of sanitary officers and boards.

"Fact 3. Such public demand for increased sanitary vigilance imposes continually added diversity of responsibility on the inspectors of plumbing. Especially will this continue to be the case in the smaller cities and towns where the appropriations for the health department are as yet much below the needed sum to obtain maximum efficiency.

"Fact 4. The growing national demand for sanitary executives has to be met, and it is from this society that the supply should logically come, if our members keep themselves tuned up to the pitch of sanitary progress.

"In view of the foregoing four cardinal facts, I would suggest that we establish ourselves more distinctively before the nation by changing the name of our society to 'The American Society of Sanitary Engineering.'

"No other band of men has equal or better right to assume such a title, and membership declaration in a society of the name suggested will give its holder a more definite emplacement than at present, should strengthen his standing and should affect in couse of time the yearly earnings of those engaged in the profession throughout the country. Whether we thoroughly realize it or not, we represent the nation's chief stock of sanitary engineers, prospective and actual, and we should neglect no opportunity to make this known. This can be done most affectively by the suggested change of name.

"Under the changing conditions above outlined, the inspector of plumbing has ceased to be a mere checker of pipes, traps and cesspools. He is gradually becoming burdened with additional sanitary engineering duties, retaining still the restricted title and pay of an inspector of plumbing. This society possesses in its membership sanitary engineers in fact and in the making, and I would urge your careful consideration of this suggestion and co-operation to the desired end.

"(Signed) HARRY DE JOANNIS."

The work of the officers and committees during the past year has been laid before you in the reports submitted. The work of the secretary is tedious and exacting—that it has been well done is evident, and I now thank him in the name of this society for his painstaking efforts and success in conducting the business imposed upon him. I also extend, in the name of the society, to the officers and committeees who assisted me during the past year, that grateful acknowledgment of work well done.

On motion the report was referred to a special committee to report on its recommendation, comprising John S. Kelly, Edward Quinn and Frank K. Chew.

The Tuesday evening session was devoted to the presentation of stereopticon views to illustrate the report of the committee on research made by the chairman, Harry de Joannis, and to illustrate the report of the committee on comfort stations and mark presented by Frank K. Chew.

At the Wednesday morning session Frank K. Chew presented the report of the committee on the recommendations in the president's address. It was recommended that no action be taken toward changing the name of the society to the American Society of Sanitary Engineering.

A paper on "Plumbing Problems in Winnipeg," by James Smith, was read and also another paper on "Final Test and Inspection of Plumbing and House Drainage," by J. P. Freeman.

After a spirited discussion on tests by a number of the members a poll of the society on final test and method was taken and it was found that in 15 cities there is a final inspection and no test; in 12 cities there is a final smoke test; in 1, a peppermint final test, and in 1, a final air test.

The board of directors then made their report and on motion was accepted. The report contained the following effort on co-operation:

"The discussion of attendance at our conventions and the question of membership for the good of the society brought to mind the necessity of having closer co-operation between the society and the National Association of Master Plumbers, the United Association of Journeymen Plumbers and the National Committee of the Confederated Supply Association. Inasmuch as all of these organizations are interested in the same field of sanitary science and that it deals with the same questions each day, it is deemed good policy that two mutative memberships be extended to each of these organizations and that they be so instructed and invitations sent to have their appointed delegates attend our next convention, to the end that a better understanding may exist and co-operation be brought about for the success of the causes for which we are working."

The following applications for membership were reported upon favorably by the board of directors and on motion they were balloted for and elected to membership: Luke J. Devine, Elizabeth, N. J.; Frank H. Fitzgeorge, Trenton, N. J.; Clarence Fry, Gary, Ind.; M. B. Moran, Chicago; James H. Durkin, Sioux City, Iowa; W. W. Petrie, Chicago; A. C. Weitzel, Omaha, Nebr.; J. J. Rowland, Shreveport, La.; A. W. Bering, Fresno, Cal.; Dr. E. Vernon Hill, Chicago; John Mitchell, Chicago; John B. Rodgers, Chicago; J. Doyle, Salt Lake City, Utah; Charles F. Walther, St. Louis, Mo.; W. J. Schrader, Minneapolis, Minn.; A. J. McGookin, Newark, N. J.

Harry de Joannis and George J. Dehn, Chicago, were admitted to full membership, and W. E. Marquam, Chicago, was elected an associate member.

Among the papers read at the afternoon session was one on "Ozone and Its Application," by Dr. M. W. Franklin; "Water Seal Self-Closing Testing Closet Joints," by E. C. Stover.

Miss Madge E. Nave, Kentucky State Inspector of Factories, addressed the meeting in a neat speech, exhorting each one in his home town to co-operate with the factory inspectors to provide better sanitary conditions.

On Thursday morning the resolution committee made its report on the following resolutions, which were adopted:

Whereas, Public comfort stations are a necessary convenience and better the morals of communities; and,

Whereas, Our federal government is constantly erecting buildings in centers of municipal population; and,

Whereas, Such buildings could be, as erected, provided with public comfort stations at a minimum expense; and,

Whereas, Such provisions would be of great benefit to the public; now, therefore, be it

RESOLVED, That it is the sense of this society that public comfort stations should be provided in all buildings (particularly post offices) erected by the United States Government, at or near centers of considerable population; further, be it

RESOLVED, That a copy of the above resolution be forwarded to the U. S. Supervising Architect; and, be it further

RESOLVED, That the members of this society urge their Congressmen to support the project as per these resolutions.

The Thursday afternoon session was opened with the reading of a paper on "School Hygiene," by Dr. H. B. Burns. On motion Dr. H. B. Burns was elected to associate membership by a single ballot by unanimous consent.

The Wolverine Brass Works, of Grand Rapids, Mich., was elected by one ballot as the first contributing member of the society.

The following officers were elected to serve during the ensuing year: President, Thomas J. Claffy, Chicago, Ill.; first vice-president, T. J. Farrel, San Francisco, Cal.; second vice-president, W. H. Jennish, Waterloo, Iowa; third vice-president, Charles F. Walther, St. Louis, Mo.; fourth vice-president, Luke J. Devine, Elizabeth, N. J.; fifth vice-president, Harry E. Schauer, St. Paul, Minn.; secretary-treasurer, Lawrence J. Lawler, Pittsburgh, Pa.; board of directors—James S. McGrath, Louisville, Ky.; Otto Meinert, Davenport, Iowa; L. A. Williamson, Joliet, Ill.

The following is a list of the members and guests present:

S. H. Gilmore, St. Louis, Mo.; Eugene Willard, Kokomo, Ind.; Charles E. Eskerb, Birminghsis, Ala.; R. Aubsen, Jackson, Mich.; J. W. Mullen, Davenport, Ia.; T. P. Padgett, Decatur, Ill.; J. J. Rowland, Shreveport, Ill.; H. J. Chisholm, Spokane, Wash.; Charles F. Madden, Green Bay, Wis.; L. A. Williamson, Joliet, Ill.; Edward Quinn, St. Louis, Mo.; John B. Rodgers, Chicago, Ill.; John Joerse, Rock Island, Ill.; Otto Meinert, Davenport, Ia.; J. D. Blake, Rock Island, Ill.; W. H. Jennish, Waterloo, Ia.; A. J. McGookin, Newark, N. J.; L. J. Devine, Elizabeth, N. J.; Thomas M. Landers, Richmond, Va.; A. C. Weitzel, Omaha, Nebr.; Thomas J. Claffy and W. E. Marquam, Chicago, Ill.; J. H. Durkin, Sioux City, Ia.; John S. Kelly, Chicago; James R. Walker, Waterbury, Conn.; Wm. W. Petrie and John G. Mitchell, Chicago; L. A. Cornelius, Grand Ropids, Mich.; M. B. Morgan, Chicago; F. H. Fitzgeorge, Trenton, N. J.; B. Oakes, Detroit, Mich.; E. C. Regester, Baltimore, Md.; H. E. Parker, Jr., Chicago; John P. Freeman, St. Joseph, Mo.; Charles F. Walther, St. Louis, Mo.; Douglas A. Brown, Cincinnati; R. S. Welsh Harry de Joannis, Chicago; F. W. Cloutier and W. J. Schroeder, Minneapolis; Martin J. Conroy, St. Paul; A. D. Campbell, New York; Thomas J. Lee, Pittsburgh, Pa.; Edward P. McKay, Wilmington, Del.; Harry E. Schauer, St. Paul; B. F. Fitzgerald. Lake Forest, Ill.; Frank K. Chew, New York; John C. Alford, Chicago; L. J. Lawler, Pittsburgh, Pa.; L. F. Bushnell and Wm. L. Rogers, Chicago; H. F. Shade, Victoria, B. C.; Frank P. Myers, Chicago; George R. Stolz, Milwaukee, Wis.; F. L. Heideklang, Chicago; H. Y. Carson, Urbana, Ill.; George J. Dehn, Chicago; James S. McGrath, Louisville; Frank Dumond and Fred E. Fladd, Rochester, N. Y.; W. A. Roeder, Baltimore, Md.; E. A. Weaver, South Bend, Ind.; W. H. White, Buffalo, N. Y.; A. R. Nichols, New York; T. J. Farrell, San Francisco, Cal.

Minneapolis will be the next meeting place of the association.

Exhibition at Pratt Institute.

THE annual exhibition of the work of the students of Pratt Institute, Brooklyn, N. Y., will be held June 12, 13 and 14. The buildings of the Institute will be open on the first day from 2 to 5 o'clock P. M. and on the next two days from 10 A. M. to 5 P. M.

Atlanta, Ga., Association Elects Officers.

THE following officers were elected to serve during the year 1913-14 by the Atlanta (Ga.) Master Plumbers' Association at a meeting held June 14: President, L. J. Melson; vice-president, T. R. Stephenson; secretary, T. C. Mell; treasurer, M. E. Ford; directors, S. S. Sheppard, M. E. Ford and J. H. Numan.

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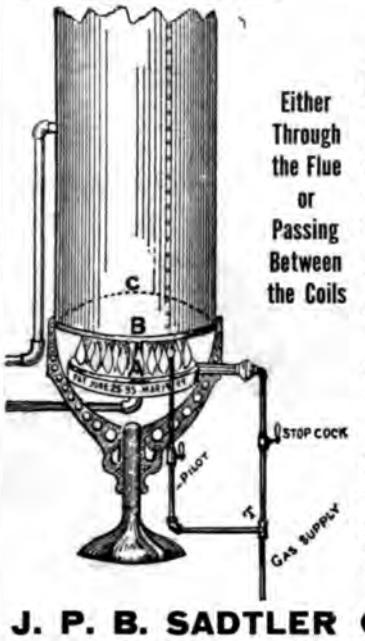

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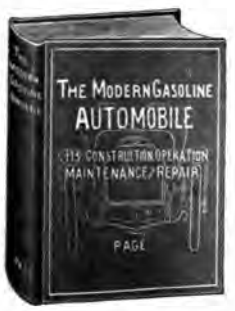

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THOMAS P. HOWLEY	200 Fifth Avenue, New York City.
Known bondholders, mortgagees, and other security holders, holding 1 per cent. or more of total amount of bonds, mortgages, or other securities	None.

Sworn to and subscribed before me this 14th day of May, 1913.
W. J. MARSHALL, Business Manager.
[L. S.] FREDERICK C. BONNY, Notary Public (No. 265), New York County.
New York.
(My commission expires March 30, 1915.)

NEW YORK, JUNE 10, 1913

Philadelphia National Convention.

The National Association of Master Plumbers was in its infancy when last it met in the City of Brotherly Love. There were but 13 Stars in the beautiful American Flag, the presentation of which to the National Association was so eloquently made by William H. Doyle, of Philadelphia, and as eloquently received by President John Mitchell, of New York. Each Star indicated a year in the age of the association. If the ennobling practice were followed at the impending meeting, the Flag upon view would embrace 31 Stars. The success and prosperity of the organization has been recognized for that considerable span of time.

Fortunately, too, there has been spared to us by Divine Providence the able, alert and patriotic pioneers whose prescience and ability made possible the largest organization of business men in the world's history. Nor has the path been one of roses. Schemes of many kinds to destroy it have been directed at the National Organization since its inception. The splendid front presented to all attacks by the enemy is evidenced in a larger and healthier organization to-day than ever before. All those engaged in the plumbing business — masters, journeymen, improvers, and helpers — have shared the benefits which have been secured through the activities of the association. Those outside the bulwarks have experienced better conditions equally with those who have stood the brunt of battle, and whose time and money have unselfishly been spent to make the master plumbers' calling a more desirable and prosperous one.

The very existence of the association and its allied branches makes for the betterment of mankind generally. Its daily achievements for health conservation will continue to enjoy an ever-increasing respect from the thinkers of the country.

In notable attendance at the coming National convention, unless all signs fail, will be members of the organization who were present at the first meeting in New York City in 1881. Some of these loyal and tenacious associates have been observed at almost all of the many annual meetings of the association wherever held since.

We will observe among the distinguished gentlemen present: John Trainor, W. H. Rothrock, Baltimore; William McCoach, William H. Doyle and R. H. Watson, Philadelphia; Daniel Finnerty and David Craig, Boston; W. E. Goodman, W. H. Halsey, Milwaukee; John L. E. Firmin, San Francisco; John Byrns, William Young and John Muir, New York; Jere Sheehan, St. Louis; T. J. Boyd, J. J. Wade, Paul Redieske and C. T. Byrne, Chicago; and a host of other veterans whose interest and enthusiasm in the cause is as prolific of good to-day as it was some 30 years ago.

Our Four Daily Convention Magazines.

Following our established practice, we will publish a convention magazine on June 17, 18, 19 and 20 at the Philadelphia meeting. These four editions will be clean and wholesome. They will contain an accurate and truthful account of the convention proceedings. Delegates who desire to take home with them an authentic report of the convention will do well to secure a complete set. These may be had at our offices upon the first (convention) floor of the Bellevue-Stratford Hotel. These four daily editions are distributed with our compliments.

The New York Plumbing Exchange

During the National Convention of Master Plumbers at Salt Lake City, we published upon July 18, 1912, in our "Convention Daily" an article referring to the New York Plumbing Exchange, Inc., giving at that time an outline of the organization and the field of its endeavor. Since then the Exchange has been established with an office at 103 Park Ave., New York City, and has been carried forward with a large measure of success. Its membership is composed of the Master Plumbers' Associations of the five boroughs and the principal dealers in plumbing material located in the greater city.

The officers are: President, Charles Murphy; vice-president, Fred H. Boardman; treasurer, John A. Murray; secretary, Charles W. Frean. The Board of Directors are: Charles Murphy, of Wells & Newton Co.; Fred H. Boardman, of Ronalds & Johnson Co.; E. J. Belford, of the United Plumbing & Contracting Co.; John A. Murray, of John A. Murray & Co.; Geo. W. K. Taylor, of McMann & Taylor; Robert Seiffert, of the Standard Plumbing Supply Co.; Wm. Smith, of E. F. Keating Co.; Wm. J. Flynn, Joseph Theiss, John F. Rogers, plumbing contractors.

One of the principal features of the Exchange is the Arbitration Board, which offers an opportunity for the settlement of differences between the members, bringing to those who have occasion to use it the assurance that their cases will be handled by men who are thoroughly familiar by their training with all the phases that might arise, and that they will receive a just and equitable decision.

The Exchange also protects its members from unscrupulous credits, and demands

that the members shall receive full payment for work done and material furnished.

It is also useful in disseminating information as to the credits and standing of the people in the business, and it is contemplated to start a Credit and Information Bureau, which it is hoped will be useful and valuable to all its members.

The president, with his officers and Board of Directors, have labored manfully in this work, their sole object being the betterment of the business of furnishing and installing plumbing material.

White Plumbing and Blacksmithing.

Some years ago there was a plumber in a western city where soft coal predominated, says the *Outlook*. Rivals had cut into his business until he bethought himself of the Efficiency Experts, and sought advice as to how he could increase his business. The Expert said, "If you will follow my advice, I will guarantee to double your business: Paint your shop white without and within. Dress your employes in white, with white shoes; give them white canvas bags in which to carry their tools; let them wear white caps and white shoes when at work; and advertise yourself as 'The White Plumber.'" This advice was followed. The man was at considerable outlay for white overalls, jumpers, etc., but his business at once began to grow like magic. The housewife who reluctantly admitted the ordinary mechanic with greasy overalls and grimy tool-bag had no apprehensions for her floors and rugs when one of the "white plumbers" arrived. Incidentally, the men braced up, took more pride in their work and in keeping themselves bodily clean. We are reminded of this by the publication in the *Engineering Magazine* of the application of the same idea to a blacksmith shop—of all places!—operated in Pittsburgh by the Pittsburgh & Lake Erie Railroad. The shop had previously had windows "carbon incrusted," the air "contaminated with sulphurous acid and carbon monoxide, so that even the leather belting, which ought to last 50 years, corroded in a few weeks." The interior walls are now painted white and repainted so that they are always white. The forges are whitewashed outside and in, and maintained white, requiring a few hours' labor once a week.

"The panes of glass are as clean as in a careful housekeeper's home," while the soot, sparks, and gases from the forges are carried through the roof by an exhaust through hoods and stacks. The fuel is kept in closed receptacles attached to the forges, so that there are no barrels and boxes standing about. "The result is a very superior daylight illumination, which must produce results in superior quality of workmanship." The writer of the article in the magazine referred to says that the railway named is controlled by men of ideals, which are applied not simply to the blacksmith shop, but throughout the rest of the system. The public and all employes have free access to all officials, and the departments are run with less average cost with better service and greater returns."

PROF. JOHN R. ALLEN, a past president of the American Society of Heating and Ventilating Engineers, who has been at Robert College, Constantinople, Turkey, for the past two years, was scheduled to sail from Naples, Italy, on June 1 via steamer *Pannonia*, and is due to arrive in New York on June 14.

LEE KELLY, the advertising manager of the Thomas Maddock's Sons Co., was caught unawares by our photo enthusiast upon leaving the Pennsylvania Terminal in New York city recently while en tour to the supply interests of New England. We present the young gentleman in a characteristic attitude of alertness. The question need not be asked—we saw "Kelly" and here he is.

LEE A. KELLY, THOS. MADDOCK SONS CO., TRENTON, N. J.

A PRETTY green and white wedding occurred in Jersey City on the evening of June 4, at the residence of our fellow craftsman, Robert A. Higgins, of the firm of Alexander Bryant Co., of New York city, when the beautiful daughter of Mr. Higgins was given away to Charles E. Wells, of Jersey City. After the ceremony 100 guests sat down to a bountiful repast and made merry until the happy couple started on their honeymoon to Atlantic City and Baltimore. The wedding gifts were numerous and appropriate, including 270 pieces of sterling silver.

THOMAS FEE, of Fee & Mason, New York city, manufacturers of pipe hangers, floor drains, etc., dropped in upon us for a casual visit the other afternoon. Inasmuch as they do business in almost every town of consequence and State in the Union, Mr. Fee is in splendid position to judge as to commercial activity of the craft. He stated that business with them was good and their salesmen throughout the country report satisfactory conditions in the trade.

Former National Secretary T. S. Cochrane Retires from Business.

T. S. COCHRANE, of 222 West 36th street, Manhattan, an active association man for many years, has permanently retired from the plumbing business, indifferent health being the reason.

Mr. Cochrane descends from a family of plumbers. His grandfather was official plumber in the city of Glasgow, Scotland, having inherited the plumber's instinct from his father. The New York City business was established in 1875, and has been successfully conducted ever since.

Mr. Cochrane enjoys the respect and confidence of the New York Master Plumbers' to an unusual degree. Each and every member is his friend and his lovable traits endear him to all. He efficiently served as local secretary for many years, his good work meriting the applause of his associates, and a diamond badge as well.

At the elevation of former National President T. A. Hill, at the Louisville, Ky. convention in June 1907, he selected Mr. Cochrane as national secretary, which office he held with credit to himself and distinction to the association.

He is a great favorite with the members of the trade press, all of whom regard him highly for his courteous and gentlemanly treatment. We sincerely regret his retirement. Our cordial wishes for a complete and rapid return to his former robust health are extended.

Mr. Cochrane in consideration of faithful and loyal services of an employe, who served with him for twenty years, has turned the business over to him as a mark of his esteem and appreciation.

The Origin of "Porcelain."

SOME people may not be aware of the origin of the word "porcelain." When, in the 16th century, traders introduced this Chinese product into Europe, its polished, translucent surface was thought to resemble cowrie shells, which, from their supposed likeness to the shape of a little pig, were called "porcellana."

Itinerary of the New York Association to the National Convention.

FOR the accommodation of delegates from New York City and their friends, who will attend the thirty-first annual convention of the National Association of Master Plumbers, at Philadelphia, Pa., June 17-20, 1913, the Pennsylvania Railroad has arranged for special all-steel equipment, to be operated on the following schedule:

Saturday, June 14, via Pennsylvania Railroad.—Leave New York, Pennsylvania station, 3.04 P. M. (32d St. and Seventh Ave.); arrive Atlantic City 6.10 P. M.; transfer to Hotel Rudolf.

Sunday, June 15.—In Atlantic City.

Monday, June 16.—Leave Atlantic City 4.45 P. M.; arrive Philadelphia, Broad St. station, 6.11 P. M.; transfer to Bellevue-Stratford.

Tuesday, June 17; Wednesday, June 18; Thursday, June 19.—In Philadelphia attending convention.

Arrangements for the return trip will be made by the committee and announced later.

The fare covering transportation for the round trip, as outlined, will be $5, and arrangements have been made with the Hotel Rudolf, in Atlantic City, to take care of members of this party at a special rate of $3 per capita, per day, American plan (two in a room), or $3.50 per day, American plan, for one person in single room.

The above rates will apply for members wishing to remain at Atlantic City until Tuesday morning, providing advance notice is given the hotel.

In order to secure accommodations on this train, and at Atlantic City, it is imperative that applications for space be made at once, stating specifically number in party, how they wish to be roomed, and accommodations desired.

All baggage which will be required during the stay at Atlantic City should be checked through to the Hotel Rudolf.

Baggage not required at Atlantic City may be checked to Philadelphia.

Any additional information regarding fares, train service, etc., may be obtained from the transportation committee of the Association of Master Plumbers, City of New York: Jeremiah L. Murphy, 238 W. 108th St.; John J. Hannegan, 161 Columbus Ave.; B. F. Donohoe, 1112 Park Ave.

Past National President E. J. Hannan Dead.

IN the death of E. J. Hannan at his home in Washington, D. C., the National Association of Master Plumbers has sustained an irreparable loss. Mr. Hannan's sudden death occurred on Thursday morning, May 29, and came as a shock to his many friends, who were not aware of his fatal illness.

Mr. Hannan was born in Ireland 60 years ago and came to this country when a boy. He started in early on his career by carrying the bag, rapidly advancing to the position of journeyman, and finally opened a plumbing establishment in his adopted city and continued to do a successful business up to the time of his demise.

Mr. Hannan was an earnest worker in the establishment of the National Association and was one of the live wires in all the proceedings of that body.

At the first convention of the National Association, held in New York City in 1883, the subject of "National Legislation and How It May Be Obtained" was assigned to the Washington, D. C., association, and in turn was delegated to E. J. Hannan to produce an essay or a few points relative to the manner in which it may be obtained. We reproduce the paper in full:

Now, as we understand the Constitution of the United States, Congress, which is the National Legislature. cannot legislate for States or cities—only in territories. The District of Columbia being one of those territories, and a kind of propogating garden, I would suggest that Congress be petitioned to authorize the appointment of a board of experts to prepare a sanitary code for the District of Columbia, and for all public buildings throughout the States, the said board to be composed of practical men; and, when said code is prepared and approved by Congress (if need be), that it be made binding upon the district authorities, superintendents of public buildngs, to have the same carried out under penalty. Further, that said board be empowered to issue licenses to all persons applying for the same to carry on the business of plumbing in the District of Columbia, or to superintend the plumbing of any public building,

THE LATE E. J. HANNAN.

provided that, in their judgment, the persons are competent; and that the act of Congress, approved Jan. 25, 1881, be amended so as to incorporate the above, and that the legislative committee be ordered to have prepared such a bill as would, in their judgment, cover the above points; and that said bill, with petition, be presented to the next Congress, and all delegates here in convention be instructed to use their influence with their Congressmen to have said bill passed.

In recognition of his activities in National Association affairs, Mr. Hannan was selected to serve on the executive board in 1887, was elected vice-president in Boston in 1888 and was elected the sixth president of the National Association at Pittsburgh in 1889. Mr. Hannan was a close student in plumbing affairs, and his wise counsel was much sought for by both national and local associations. He was very determined and set in his ways, but withal was one of the most genial and pleasant companions. He was a member of various business organizations and fraternal orders, all of which were well represented at his funeral, which was held at his late residence Saturday, May 31.

Among the members of the national and local associations represented at the funeral were: National Past President W Nolan, of Washington, who was to represent the National Associ President Frank J. Fee, who fou possible to attend. National Past John Trainor, James Trainor, B. livan and H. C. Boland represent more. National Treasurer Wm. and National Past President W represented Philadelphia. Natio Secretary Samuel Artz, P. G. Wm. Shields, John L. Shedd, M Carthy, Frank Kerr, D. J. Murp McGolrick, Henry J. Allen, Jas ningham, Wm. J. Mooney, F. C. J. A. Herbert and P. E. Niland a special committee from the Wa association. Chief Inspector of Alfred R. McGonegal and Ex O'Brien also attended the servi were held in St. Patrick's Church

Mr. Hannan is survived by W and one son.

The Michigan Need for Plu

THREE hundred plumbers ha licensed to date this year Detroit, Mich., Board of about double the number of new issued last year.

Nearly every plumber in Detroit willing and able to work is busy, sa itary Engineer William G. William the Board of Health, in charge of plumbers' licenses. About 800 n now employed.

"The average Detroiter does not how fast Detroit is growing, espec the Grand River section east and that avenue beyond the boulevard, Fairview," said Williamson. "Ferry was an onion patch a year or so a blocks of new houses are there no this whole section new blocks of have been built east and west of th nue.

"In the Fairview district new house the avenue out as far as Fox Creek. La Salle Gardens district, and other erty out the Hamilton avenue car li being rapidly improved and adding share to the work of the plumbers.

"I have known of many instances w a family, from lack of room, are compe to move from one room of a half-c pleted house to another while the pla ers were finishing their work."

The new plumbers come from all p of the country, about 35 or 40, or 10 cent., being attracted to Detroit from C ada. Others come from all States in Union. Plumbers from New York, O Illinois, Missouri, Nebraska, Colorado other States are permitted to go to w immediately after proving that they are censed in the States from which they co

Plumbers without licenses from ot States have to stand an examination. I mits for work from the water board the board of public works being held until they have complied with the requ ments of the board of health. Plumb coming from Illinois, and especially C cago, are especially well versed in ven tion, Engineer Williamson says, the o nances in the Windy City being very str ent.

Eighteenth Annual Convention of the Washington State Association.

MEMBERS AND GUESTS OF WASHINGTON STATE ASSOCIATION OF MASTER PLUMBERS.

THE Washington State Association of Master Plumbers held their eighteenth annual convention at Everett, May 16 and 17. The first day's session opened at Knights of Pythias Hall, where a reception was held previous to the business meeting. What the convention lacked in number was made up with enthusiasm, and the proceedings were interesting from beginning to end.

Mayor C. Cristenson welcomed the delegates to Everett in warm manner, and told the delegates to consider themselves at home while in the city. Following the afternoon session all the delegates were taken in automobiles for a drive throughout the city, the points of interest being the great lumbering mills on Port Gardner Bay and the Snohomish River, public buildings and the business and residence districts.

A theater party was given at the Rose Theater in the evening which was largely attended by the delegates and their ladies.

The second day's session was held at the Elks' Home, where they were again welcomed by W. W. Blain, secretary of the Everett Commercial Club, who spoke for the business interests of the city.

A matter of considerable importance to all the plumbers in the State of Washington was discussed at length, this being the rate assessed against the employers in the craft under the workingmen's compensation act of the Washington Legislature. This was declared to be excessive and unreasonable because the percentage charged to plumbers is out of proportion to that fixed against other lines of employment in which the danger of injury is much greater.

Nearly all the delegates present added something to the discussion of this question, and the experience of all went to show that in fixing the assessment against employing plumbers the framers of the compensation act had, evidently through lack of information, greatly overestimated the danger attending workmen engaged in plumbing installation and fitting. The new president was authorized to appoint a committee to present this matter to the State officials and secure through legislative channels amelioration of these conditions.

A resolution that received the strong indorsement of the association was the establishment of public comfort stations and a multiplication of public drinking fountains throughout the cities of the State. This action was taken to encourage a movement in Washington to improve sanitary conditions in communities.

A great deal of interest was taken by the delegates in the reading of a report by the United States Bureau of Statistics, declaring that Washington has the lowest death rate among all the States of the Union, only 7 in 1,000 population, and attributing this to the splendid sanitary conditions maintained in the cities of the commonwealth and the excellence of the plumbing employed. The members determined to work more heartily and unitedly for not only the maintenance of this high standard of community cleanliness, but to improve these conditions to the fullest extent possible.

The report of the credential committee showed the following delegates present:

AT THE EIGHTEENTH ANNUAL CONVENTION HELD AT EVERETT, MAY 16 AND 17, 1913.

Greater New York News.

May Examination of the New York Examining Board of Plumbers.

THE following questions and plan was submitted to the applicants appearing before the New York Examining Board of Plumbers at the May examination, which was held in the board's rooms at 149 Church St. The city is to be congratulated in the acquisition of such a body of intelligent men that now constitutes the present board. Seems as if we were traveling in the right direction.

1. What is the chief reason for installing back vent pipes on the drainage system in buildings?

2. What is the difference between drainage fittings and ordinary fittings, and why are drainage fittings used on drain pipes?

3. An ordinary hot-water kitchen boiler is properly heated by a water back in a kitchen range and contains good hot water in the boiler, but when a small quantity of this hot water is drawn from the boiler the hot water which is left becomes suddenly cold. What is the cause of this condition?

4. What is water hammer? How do you prevent it?

5. The water-service pipe that supplies water to a building is buried under the ground. How would you find out whether there is a leak on this service pipe without digging up the street or ground?

6. What side of a globe valve is the pressure side?

7. Where the plumbing fixtures supplied with hot water in a building are located on each side of that building, what method would you use in circulating this hot water on a one-pipe system?

8. Why are gate valves used on water-supply systems?

9. What is the purpose of marble floor slabs under water-closets?

10. Should plumbing fixtures be double trapped? Give reason for your answer.

11. On large, tall buildings over 20 stories high, and where there are several lines of hot water supplying the fixtures, it is found that the hot water does not circulate after the piping has been properly installed. What means would you use to make this water circulate so that hot water might be drawn at all times?

12. Is it proper to connect an area drain with a leader trap? Give the reasons for your answer.

13. Is there any objection to having the hot-water circulation pipe end above the highest fixture that it serves? Give the reasons for your answer.

14. What is a house sewer, and what is a house drain?

15. On large, tall buildings 30 stories and over, how would you supply cold water to the plumbing fixtures on all the floors and keep a moderate pressure on all fixtures without using any reducing valves on the system?

16. Under what circumstances would you use a rust joint on cast-iron pipe, and how would you make a rust joint?

17. In a small private house complaint is made that they are getting hot water from both faucets at the plumbing fixtures. What is the cause of the hot water coming from the cold-water faucets at these fixtures when the piping is properly put in?

18. How would you locate a leak in the drainage system of a building?

19. Where plumbing fixtures are located below the sewer lever, what means should be used to dispose of soil and waste from these fixtures?

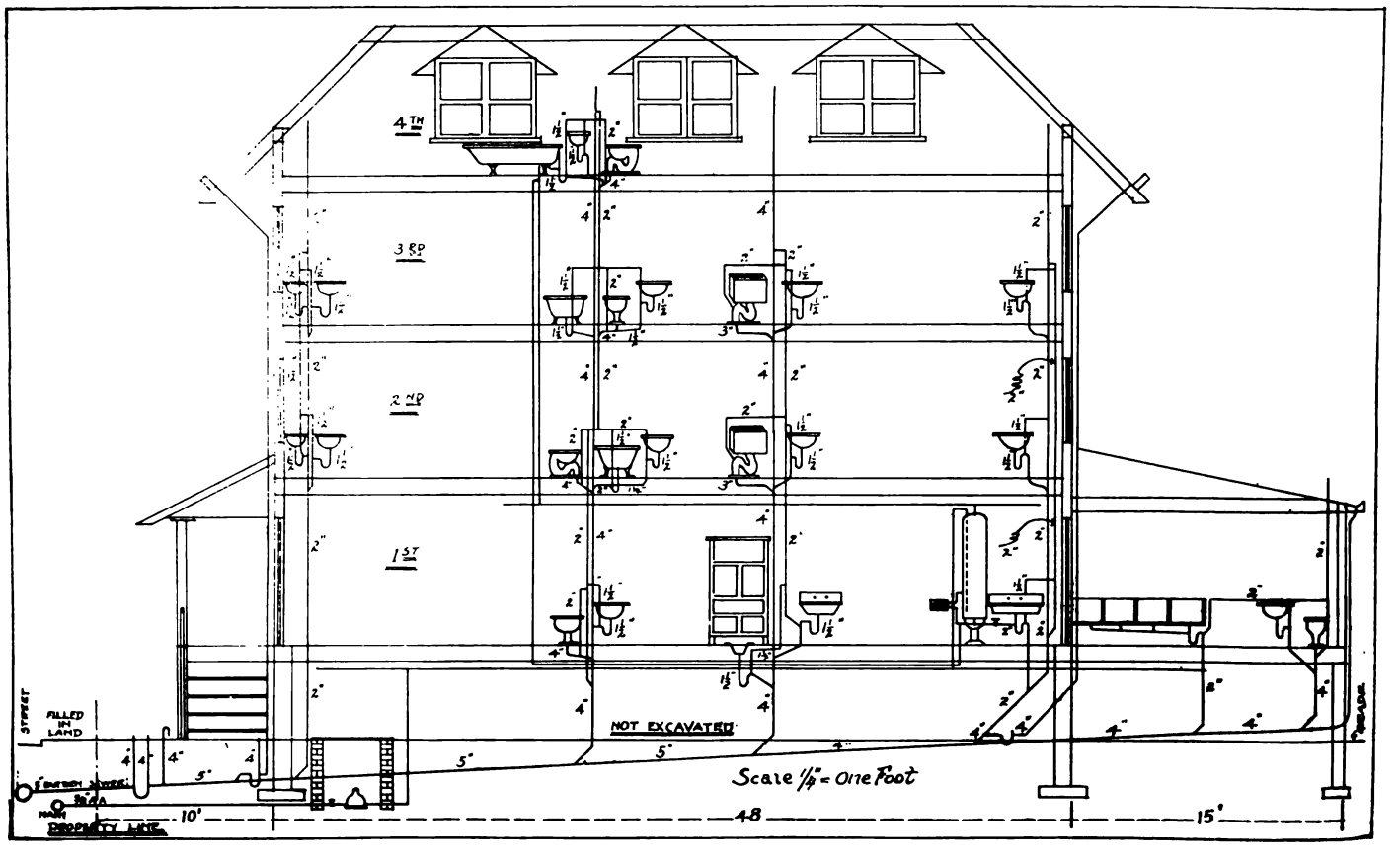
20. Where should a local vent pipe connect to a water-closet?

Award of Large Plumbing Contract to W. G. Cornell Co.

A CONTRACT which is the third largest for plumbing in an office building ever awarded in New York has just been secured by the W. G. Cornell Co., which, besides its Manhattan offices in the Everett building, has offices in Boston, Baltimore and Washington.

The contract in question is for the installation of the necessary plumbing in the new Western Union building, the constructor of which is Marc Eidlitz & Son and the architect W. W. Bosworth.

With the Woolworth building and Municipal building rated respectively first and second in the city's biggest plumbing contracts, the contract for the new Western Union building represents a million dollars' worth of plumbing.



PLANS OF THE MAY EXAMINATION OF THE NEW YORK EXAMINING BOARD.

Lynn, Mass., Master Plumbers Hold Banquet.

DANIEL G. FINNERTY, former president of the National Association of Master Plumbers and present Assessor of Nahant, Mass., resplendent in evening clothes, which is the official raiment worn by him when appraising property around Eastern Point, entertained the Master Plumbers' Association of Lynn at their first annual dinner at the Seymour Thursday evening, May 22.

Mr. Finnerty will be 50 years in the business in a few months and he contrasted the men and methods of his early days with those of to-day in a characterstic way, graciously conceding that he himself had done some of the best work known to Eastern Massachusetts.

Shortly after 6.30 the guests commenced to arrive and were welcomed by the officers and introduced to the guests of honor, Richard J. Welsh, of Lowell; Robert Robertson, of Beverly; James H. Trow, of Salem, and James S. Cassedy, of Cambridge, and Friend Finnerty. After an hour's social intercourse, during which time many old friendships were renewed, the line of march was taken to the banquet hall to the music furnished by Mitchell's Orchestra, and the guests of the evening were escorted by the officers of the local association. Caterer Smith had provided a bountiful repast.

After all had done justice to the food and cigars were lighted President Feehan presented Richard J. Welsh, of Lowell, director of the National Association of Master Plumbers of the United States, who spoke on the value of the National Association to the individual and of the many ways in which benefit accrued to its members.

James S. Cassedy, State vice-president of the National Association, was then introduced and emphasized the remarks of the preceding speaker by the citation of numerous specific instances in which different parties had been materially helped by the association.

Robert Robertson, president of the Massachusetts State Master Plumbers' Association, after being introduced by the toastmaster, gave an interesting talk on the formation of the North Shore Master Plumbers' Association and of the means which they had employed to secure the active and hearty co-operation of all the members. He also gave an account of the activities of the State Association.

James H. Troy, of Salem, chairman of the essay committee of the State Association, spoke on the educational side of the body, which is working along lines similar to those employed by the National Association of Credit Men. He also gave more detailed information as to different methods to be employed in estimating and figuring contract work.

Ex-National President Finnerty then made a strong plea for all of those present to join both the local and higher bodies. He also gave numerous interesting reminiscences of the early days in the plumbing business, when there were only three master plumbers in the city of Boston, none between Boston and Worcester, and only one between Boston and Providence. He also stated that at that time it was no uncommon occurrence for a plumber to be sent for from a place 100 miles or more away to do a few hours' work.

At the close of the addresses application blanks were passed among those present and a number were returned to the secretary, together with the initiation fee. The president then called for a rising vote of thanks to the speakers, which was given. Upon request Mr. Finnerty then gave still more reminiscences of the time when he was traveling over the country in the interests of the National Association and when he had concluded the gathering united in giving him three cheers and a lusty tiger, after which all went home, agreeing that the first annual banquet was a huge success.

LIST OF THOSE PRESENT.

Head table—J. B. Feehan, president of the local association; R. T. Allen, of Cliftondale, vice-president; George E. Ryan, Sterling H. Pool, of the Howard F. Pool Co., and B. T. Thompson, of Thompson & Libbey, directors; William H. McKeen, treasurer; Ellwood B. Paige, secretary; Richard J. Welsh, of Lowell; Robert Robertson, of Beverly; James H. Trow, of Salem; James S. Cassedy, of Cambridge; D. F. Finnerty, of Nahant.

At the other tables—F. K. Tobin, manager of H. W. Heath; R. J. White, J. Frank Pension and J. H. Pension, P. B. Mayo, C. W. Rolin and J. E. Reardon, of the General Engineering Co.; J. Loughlin and A. C. Thompson, of Loughlin & Thompson; F. W. Graves, Joseph McGilvary, George C. Parker, J. S. Bridges, W. N. Chamberlain, L. H. Chamberlain and Guy A. Hall, of Hall, Chamberlain & Co.; L. E. Gorham, C. H. Elderson, Joseph Fishman and Louis Sandler, of Sandler & Fishman; J. P. Kellary and M. J. Duffy, of J. P. Kellary & Co.; W. A. Coa B. Perkins, W. H. Danforth, Ber Thompson, of Thompson & Libby Sawyer and E. E. Sawyer, of F. W yer & Co., and Samuel Tartikoff, Union Plumbing Co.

Putnam Machine Compa Booming.

AT a special meeting of the holders of the Putnam Fo Machine Co., of Putnam, C May 27 it was unanimously voted cept an amendment to the charter company, passed at the January se the Legislature, authorizing the to increase its capital stock. The stock was $75,000 and it was vote crease it to $125,000, and 500 sh preferred stock at $100 a share will issued. The following board of was elected: Edward Mullan, F Letters, G. H. Gilpatric, L. E. Smit uel Reynolds, Putnam; George M son, Woodstock; R. F. Gardner, Jr. dence, R. I. The company manufa heater second to none in the coun the plant is busy all the time and able to supply the demand.

New Heater Company of dence, R. I., Gets Charte

THE Turner Heating Co., to cated in Providence, R. I., ha granted a charter at Secret State Parker's office. This corporati cording to the articles of associatio constituted for the purpose of engag the business of manufacturing, b selling, installing and dealing in heatin paratus of all kinds. The capital co of common stock amounting to $25,00 vided into shares of $100 each. Th ganizers are Gardner L. Miller and E F. Carey, of Providence, and Willia Turner, of East Providence.

Bad State of Affairs in a Gr Rapids School House.

PATRONS of the Sheldon Ave. s at Grand Rapids, Mich., are ap ing for a new school building. asked last April and were turned dow the people at large because too big a issue was included, touching practi every school building in the city.

Only $90,000 is requested for this building. And if a new Sheldon school is built the old Ionia Ave. s building will be dispensed with.

re the grounds on which they request:

quarters are far too small to ate the growing school population. conditions are not as good as in ers' barns where stock is raised. of boiler in the basement under orridor forms a veritable firetrap dren getting out of the building, break out.

rom the boys' toilet in basement gh the class rooms, endangering of the children.

unds for the citizens' appeals are The building is too small. Last number of pupils were increased very month there has been an Over 350 children attend now. the number will reach to 400.

sent school contains eight rooms. ng was erected 40 years ago on accommodate the school popula- at time. This plan is far from nt needs demand. The building dered a prize one 40 years ago. known to be a disease-breeding, wded firetrap.

the resemblance between this old l school building and some of up-to-date pavilions at the pub- s decidedly marked.

tory Repeats Itself.

NORWICH, Conn., June 5, 1913.

RCHANT PLUMBER AND FITTER:

accompanying fish story, now nerable, puts us again in touch h your late correspondent's tale. ross it in an old paper, I thought while to refer it to you as a re- sample.

JOHN TROLAND.

ped in the Water Sixteen Years Proves that Stale Perch Was Sold to Him.

CHICAGO, Feb. 7, 1901.

Kaester tells a strange story. Not long ht a bargain in the form of a green "Ghetto" district. Repeated freezing e fish unpalatable. As a result Kaester

isks the payment of his medical bill elief due him, he asserts, because of of the city fish inspector to condemn een perch. Kaester can prove, he says, was old.

ears ago, while fishing near Green ie dropped from his finger a ring set nge stone. Almost before the ring vater, he says, it was seized and de- voracious perch.

he declares, was recovered in the r caused his illness. As a perch does er than 12 years Kaester affirmed that was dead and in cold storage at least nd probably a longer period, before narket place in the "Ghetto."

nes Loss on Bankers.

GE D. HOWELL, vice-presi- nt of the insolvent McCrum- well Co., manufacturers of radi- ardware, declared in the United strict Court recently that the ccepted by the reorganization for the defunct concern was adequate. The actual worth of ny, he insisted, was $4,725,000. ere enough assets, according to pay the creditors in full, where- ly received 22.2 per cent. under the reorganization plan approved by Judge Buffington in Philadelphia.

The reorganization committee consisted of Arthur N. Wiggin, president of the Chase National Bank; John C. McKeon, vice-president of the National Park Bank; Charles H. Sabin, vice-president of the Guaranty Trust Co., and Herman Waldeck, vice-president of the Continental and Commercial National Bank of Chicago.

Howell's attorneys insisted that the payment of the creditors under the reorganization plan relieved him of responsibility for the payment of certain notes for $2,100,000.

Attorneys for creditor banks held that Howell should have made his objections at the time the reorganization decree was filed.

Judge Mayer reserved decision.

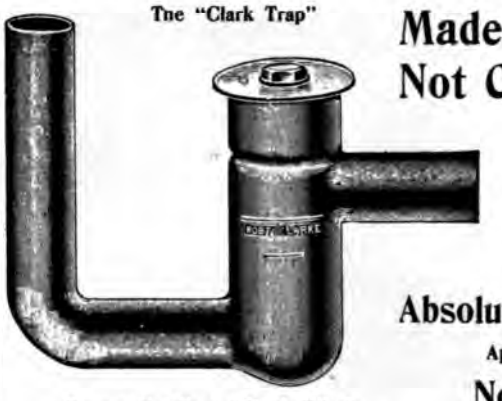
Meetings of Philadelphia Steam Fitters.

AT the annual meeting of the Philadelphia Master Steam and Hot Water Fitters, held at 1518 Sansom St., the following officers were elected to serve the ensuing year: President, Robert J. Hoven; vice-president, William M. Anderson; treasurer, Edward R. Steinmetz; secretary, M. G. Sellers. Executive committee—William P. Thompson, chairman; Harry Boon, Joseph W. Breen.

W. J. Sweeney & Co., of Union Springs, Ala., have opened up a new plumbing and fixture shop in the vacant store next to the Pittman & Perry furniture store.

SAND HOLES? NEVER!!

The "Clark Trap"



Drawn, Not Cast, "That's Why"

Made from Drawn Lead
Not Cast = = That's Why

It's the Reliable

Clarke Trap

Absolutely Non-Syphoning

Approved by all Boards of Health

No Other "Just as Good"

Of Course You Want a Catalog. Shall We Send It?

Manufactured by ROBERT CLARKE

100 Schermerhorn Street, Brooklyn, N. Y.

GALVANIZED IRON COVERS

Something New

Patent Applied For

FOR

Laundry Tubs

The only all iron cover made, absolutely no part wood.

Strong, Durable and Attractive.

This cover makes the laundry tub perfectly sanitary.

Prompt shipments on regular sizes.

Regular Sizes: 21¾ in. x 4 ft. with 4 in. back strips. 24 in. x 4 ft. with 4 in. back strips.

Extra Sizes: made to order on short notice. Send for full information and prices.

GREASON MANUFACTURING CO.

108 West 99th Street, New York, N. Y.

He Dug.

HE wanted a job, and, like everyone else,
He wanted a good one, you know;
Where his clothes would not soil and his hands would keep clean,
And the salary mustn't be low.
He asked for a pen, but they gave him a spade,
And he half turned away with a shrug;
But he altered his mind and, seizing the spade—he dug!

He worked with a will that is bound to succeed.
And the months and the years went along.
The way it was rough and the labor was hard,
But his heart he kept filled with a song.
Some jeered him and sneered at the task, but he plugged
Just as hard as he ever could plug;
Their words never seemed to disturb him a bit—as he dug.

The day came at last when they called for the spade
And gave him a pen in its place.
The joy of achevement was sweet to his taste
And victory shone on his face.
We can't always get what we hope for at first,
Success cuts many queer jigs;
But one thing is sure—a man will succeed —if he digs.

—Louis E. Thayer, in *Calumet*.

Delegates to the Thirty-first National Convention of Master Plumbers.

Massachusetts State.—Robert Robertson, John J. Vogel and O. S. Kendall. Alternates—E. J. Connell, Somerville, and Jonas A. Larraway, Winchester.

Florida State.—Joseph Osborn, Daytona, and J. W. Fowler, Jacksonville. Alternates—C. J. Gadsey, St. Petersburg, and S. G. Bouis, Jacksonville.

Brooklyn.—Thomas E. O'Brien, John J. Dixon, Edward J. Belford, James T. Keenan, Patrick H. Gleason, Michael J. McGrath, George F. Tracy, Edward Macdonald, Michael F. Gleason, William Eierman, John W. Sands, Matthew J. Kennedy, James Jarcho and Ignatius P. Byrne. Alternates—Joseph F. Corcoran, John Gannon, Robert E. Dingman, Louis Frisse, Wm. A. Crane, Martin J. Hayden, Wm. A. Nugent, Harry Voletsky, Thomas Quinn, Louis P. Gfroerer, Thomas F. McEnaney, Louis Kayfetz, James Johnston, Lewis A. Deiser, Jr.

Texas State.—N. S. Hill, George Robinson, W. C. Shuwirth, Joseph Netzer, Porter Kiethly, P. J. Sheehan, J. F. Madden, J. O. Monerief, R. E. McDonald, Ed. Braden, A. Fraser, J. C. Kinney, A. L. Mitchell, John McNeely, Fred Robbins and Walter Shafer. Alternates J. W. Thiel, H. W. Warren, P. E. Fosdick, J. A. Berry, W. B Smith, J. H. Wolley, W. E. Payne, Mrs. Maud Graul, C. J. Garritson, Adolph Deutz, R. C. Malitz, F. L. Putnam, Joe Fisher, B. D. Hodges and J. Camp.

Boston.—P. A. Lang, E. C. Kelley, C. H. Cronin, E. W. Cox, J. S Cassedy, L. W. Stevens, F. B. Connor, O. C. Poole, J. W. Zerringer, W. P. Jones, Charles Tucker, Daniel Shannon, J. C. Kelley, N. J. Kelley, A. A. Thompson. Alternates—J. P. Perham, J. Larraway, L. P. Bresnahan, M. Ahern, Thomas Mahon, D. F. Keefe, Frank Bonney, T. J. Tute, A. E. Curtin, A. E. Touchet, W. F. Arkinson, D. T. Harrington and William Nason.

Tennessee State.—F. J. Whitaker, Memphis, and James Gallagher, Nashville.

Arkansas State.—Wm. Borman, Hot Springs, and W. B. Sanders, Little Rock. Alternates—W. H. Hayman, Van Buren, and C. R. Jones, Little Rock.

Chicago—President C. A. Drier, National Director Carl J. Stein, P. M. Murphy, C. C. Breyer, E. C. Wagner, C. F. Taffe, C. J. Boyd, B. E. Lynam, P. J. Foley, W. D. Kelly, J. I. Elliott, J. Delehant, C. J. Herbert, M. L. Mandable, Henry Breyer, A. C. Hickey, E. J. Benning, J. E. Baggot, John Kleker, J. C. Naughton, G. A. Larson, D. J. Hickey, F. W. Page, A. Morrison, W. R. Black, F. J. Dillenberg, W. J. Lang, R. J. Powers, W. F. Bahn, J. J. Kratz, G. Franklin, L. A. Clausen, R. B. Finn, F. Grosch, W. Downs, C. Mundt, L. Nelson, W. Redieske, F. J. Bohn, P. Desmond, W. F. Knauss, F. E. Pearson, G. Schey, J. Coupland, W. J. Morris, G. F. Winkler, P. Jacoby, T. F. Hanley, F. N. Kiesgen, W. F. M. Fetridge, H. Nacey, J. Cepican, J. Dooley, Max Rice, R. Redmond, H. Boyd, J. Cannon, I. Euphrat, J. G. Weber, P. Feltman, T. Beggs, J. J. Dunbar, J. J. Dillenberg, B. J. Farwell, J. Scheuer, J. J. Burns, A. P. McInerney, F. Schuster, D. Whiteford, S. J. Loula, A. L. Racine, G. Schirmer, W. G. Wood, C. H. Jespersen, J. J. Friedrich, Samuel Erman, M. J. Corboy, T. Conlin, J. L. Corcoran, C. D. Harris, J. Reilly, F. W. Hudon, W. Dorous. Also the following honorary delegates: D. S. Bain, T. C. Boyd, C. J. Byrne, A. W. Murray, P. Redieske, D. J. Bock, J. B. Ryan, P. Schmidt and J. J. Wade.

Cincinnati, O.—Thomas J. Dwyer, Ray J. Hillenbrand, John J. Vogelpohl, Edward Frank, J. Bernard Laumann, Richard Cluxton, Frank Niesen, Andrew J. Murphy, W. H. Franklin and A. Jerome Murphy.

Dayton, O.—President E. E. Halteman, William Haas and M. Snyder.

Jersey City—Wm. J. Cross, A. R. Harris, Chas. Werner, Jas. A. Joans, Wm. A. Barclay, Jr., John J. Coppinger, John J. Corcoran, R. Ewald, J. G. Birkenstock and Jos. A. Sprouls. Alternates: T. Watson, A. J. F. Edge, J. A. O'Neil, J. C. Kuntz, A. Foss, Valentine Ringle, John Anderson, H. A. Cohendet R. Entwistle, H. A. Parle.

New York City—A. H. Brown, J. F. Griffin, Philip Brady, Jas. S. Lawler, Thos. P. McLoughlin, Jno. R. Hopkin, James Smith, Harry Hemlin, Wm. Young, B. F. Donohoe, John Renehan, Jere J. Delany, Philip Eich, August Hansen, Ed. J. Brady, Geo. H. Creasy, J. L. Murphy, Jacob Jarcho, Paul Euell, Chas. A. Walsh, Louis Moeschen, Wm. P. Smale, H. B. DeVoe, Frank J. Begen, Jno. D. Cooley, J. A. Rossman, John Byrns, B. A. Buge, A. S. Gaynor, J. H. Jasper, Chris. Nally, Hy. A. Neumann, Milton Schnair, Richard Tretter, F. B. Lasette, Isaac J. Brown, Fred Schwarz, J. J. Delehanty, Frank J. Fee, Charles Murphy, Thos. J. Tuomey, F. J. Weisberg, J. A. Sharp, Jac. Abrams, Jno. A. Long, E. Glucksmann, Jos. Klein, B. W. Rod, I. J. Barth, Jacob Levy, Harry Klein, Phil Levitt, Chas. H. Darmstadt, J. Robt. Stroh, Jno. J. Whelan, Hy. Altman, Chas. Catania, Jos. H. Renehan, Herman Auskulat, Ed. Hurley, Hugh Taylor, Jas. O'Brien, Wm. J. Fowler, Thos. J. Cummins and Oscar Schweitzer.

Dates of Coming Meetings.

New Jersey State Association of Master Plumbers, annual convention, Camden, N. J., June 16.

National Association of Master Plumbers, annual convention, Bellevue-Stratford Hotel, Philadelphia, Pa., June 17, 18 and 19. George F. Uber, 13th St. and Fairmount Ave, is chairman of the convention committee

Eastern Supply Association, Summer meeting, Hotel St. Dennis, Atlantic City, N. J., June 19, 1913.

Pennsylvania State Association of Master Steam and Hot Water Fitters, annual convention, Harrisburg, Pa. June 21.

Central Supply Association, Summer meeting, St. Paul Hotel, St. Paul, Minn., June 23 and 24.

National Association Master Steam and Hot Water Fitters, annual convention, International Hotel, Niagara Falls, N Y., June 23, 24, 25 and 26.

American Society of Heating and Ventilating Engineers semi-annual meeting, Hotel Statler, Buffalo, N. Y., July 17, 18 and 19.

The contract for the erection of the new Eastern Star-Masonic Home in Boone, Ia., was let in Des Moines, the J. E. Lusant & Son Co., of Des Moines, getting the contract for the main building, costing $36,581, while A. A. Thompson got the plumbing contract, amounting to $5,865.50.

Convention of the National Association of Master Steam and Hot Water Fitters.

THE National Association of Master Steam and Hot Water Fitters make the following statement through the official bulletin:

The twenty-fifth annual convention of the National Association of Master Steam and Hot Water Fitters will be held at Niagara Falls, N. Y., June 23 to 26, 1913, with headquarters at the International Hotel.

There are without doubt numerous master steam fitters in this country who ought to consider their own welfare to the extent of becoming members of their trade associations, and thereby exhibit a fraternal spirit which would directly and indirectly, sooner or later, be of material benefit to themselves and to the trade at large.

An invitation to join this association has been extended to all master steam fitters not now members, and it is repeated at this time. It must be borne in mind, however, that only such as can demonstrate that they are regularly established in business and worthy of recognition as master steam and hot water fitters are eligible to membership in the national association.

We will state that the forthcoming convention is not a convention for delegates only, and the sessions of the convention will be open to the trade at large.

The convention's headquarters will be at the International Hotel, where all meetings will be held.

All master steam fitters who desire to attend the national convention will be heartily welcomed.

The tenative program for the convention is subject to change if necessity arises for making any, and announcement will be found on the bulletin board conveniently placed in the lobby of the International Hotel.

Members and others in attendance at the convention (including the ladies) are requested, upon arrival, to register in the book provided for that purpose and receive the association button, which will admit the wearer to all entertainments.

Monday evening will be devoted to informal greetings and dancing accompanied by music from a string orchestra.

On Tuesday morning, after the business session, a reception will be held and a special event takes place in commemoration of the silver anniversary of the association.

At 3 o'clock Tuesday afternoon special cars will be taken for a trip over the famous Scenic Gorge Route, passing the Horseshoe Falls, the Whirlpool, Whirlpool Rapids to Lewiston—stopping en route to visit Brock's Monument, from which point a magnificent view of the surrounding country can be had.

At 5 o'clock sharp a rifle match between teams from the National Association of Master Steam and Hot Water Fitters and the Manufacturers and Supply Men's Association will take place at the shooting gallery, to be announced on bulletin board to be found in lobby of International Hotel.

At 8.30 o'clock illustrated lectures in assembly room of International Hotel by

manufacturers. An interesting and ble evening is expected.
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sday afternoon will be devoted to omobile ride around Goat Island and points of interest, and in the even- 8 o'clock, a banquet and cabaret will be tendered to members and by the International Hotel.
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The Value of a Pure Water Supply.

By W. H. DITTOE,
Cer. Engr., Assoc. M., Am. Soc. C.E., Chief Engineer Ohio State Board of Health.

IT is generally conceded that the possession of a public water supply represents a financial asset to the community so favored; but too frequently the relative value of the supply is judged only by its available capacity and by the condition of the equipment and appurtenances provided to distribute it to the consumers. While these features are of importance and should be given due weight in fixing the value of a water supply, there also exists a frequently neglected consideration, namely, the quality of the supply. A community possessing a water supply of abundant quantity, entirely satisfactory quality, and with ample equipment for distribution, has an asset of great value; and the degree to which any of these factors fall short will determine the relative value of the installation. As is indicated in the title of this paper, only the consideration of the quality of the water supply will be taken up. It will be the attempt to demonstrate that the good quality of a water supply represents a financial asset, while deficiency in its quality represents an actual cost to the community.

George C. Whipple in his treatise on "The Value of Pure Water," draws particular attention to the financial aspects of the quality of public water supplies and offers several formulæ by which the deficiency in quality may be presented in terms of dollars and cents. While it is not the aim to place other considerations subordinate to the financial aspect, this basis of computation is suggested by Mr. Whipple as a means of showing the advantage of a pure water suppy.

What constitutes a pure water supply? George W. Fuller, in a paper recently read before the International Congress on Hygiene and Demography at Washington, D. C., stated that "In addition to hygienic purity, a perfectly satisfactory water supply should be of good appearance as to absence of mud, vegetable stain, grosser microscopic organisms, soluble and suspended iron, and it should also be free of offensive tastes and odors, excessive hardness and abnormal corrosive action on service pipes."

Undoubtedly the purity of a water supply is usually gauged by its suitability for drinking and culinary purposes. In a broader sense the characteristics which affect the use of water for purposes other than drinking should also be considered. A pure water supply may then be taken as one whose physical, hygienic and chemical properties are such as to render it unobjectionable for any purpose for which a public water supply is used. The physical quality is affected by color, turbidity, sediment, taste and odor; the hygienic quality by the presence of disease causing organisms; and the chemical quality by the presence of dissolved mineral substances, indicated as hardness, acidity, iron, etc.

The various factors influencing the quality of the public water supply will be considered from the standpoint of the financial depreciation of the supply.

Physical Quality.—A water supply of satisfactory physical quality must be free from turbidity, sediment, color, taste and odor. The degrees to which any of these constituents are present determine the comparative value of the supply. The objection to these constituents varies in different localities and is somewhat dependent upon the sensibility of the observer. A surface supply is usually of unsatisfactory physical quality, which may be rendered more objectionable by the presence of algae and other forms of growths. These impart to the water objectionable color, tastes and odors, giving rise to general complaint.

Poor physical quality generally brings about the use of other sources of supply for drinking purposes, and in this way an added expense is placed upon the members of a community. In a number of cities it has been necessary for the inhabitants to purchase spring water or distilled water for drinking purposes, or to install private wells. Other costs to the municipality, result from deficient physical quality of the water supply, such as the depreciation of pumps, valves and meters, and the necessity of cleaning and flushing mains. The extent to which these factors demand an outlay of money is variable.

Hygienic Quality.—A water supply of entirely satisfactory hygienic quality is one which does not produce disease. The extent to which a water supply causes disease will, therefore, measure its relative deficiency from a sanitary standpoint. Typhoid fever statistics are of value in determining this factor. Of course, the water supply is not the only cause of typhoid fever, and many cases must be attributed to unsanitary conditions, fly infection, contaminated milk supplies, contact, etc. It is, however, fairly well established that a typhoid fever death rate in excess of 20 per 100,000 population is indicative of water supply contamination.

The occurrence of typhoid fever in a community represents a real financial loss to the community. This loss is represented by the actual loss of vital assets due to typhoid fever deaths, the cost incident to the cases of typhoid fever occurring, and the losses resulting from other diseases caused by the impure water supply. Various authorities have estimated that the average value of a human life lost as a result of typhoid fever is $5,000. Statistics have shown that for every death from typhoid fever there occur about fifteen cases. A conservative estimate of the cost of treatment, loss of wages, etc., for each case, is $100. The various losses brought about by other diseases caused by the impure water supply will make an estimate of $10,000 for each typhoid fever death conservative. On this basis the actual financial loss to a community, resulting from a water supply of unhygienic quality, may readily be calculated. For instance, with a typhoid fever death rate of 50 per 100,000 population, the actual financial loss to the community is $300,000 per year per 100,000 population. If the water consumption is 100 gallons per capita per day, the actual loss is $82.50 per million gallons of water pumped.

Cincinnati, by the improvement of its water supply, reduced its typhoid fever death rate from 64 to 13 per 100,000 population. This corresponds to a saving of $5.10 per capita per year, or one and three-fourths million dollars per year. Columbus, by installing a water purification plant, reduced the typhoid fever death rate from 56 to 17, corresponding to a gross saving of $700,000 per year, or $3.90 per capita per year. Chicago, by extending its water works intake four miles, reduced the average typhoid fever death rate from 80 to 34, corresponding to a per capita saving of $4.60 per year, or a gross saving of seven million dollars per year.

In view of these striking figures the cost of construction and maintenance of the works accomplishing the improvements appear insignificant. These costs will, in most all cases, be met by the accumulated savings of a few years.

Chemical Quality.—A water supply may be said to be chemically pure when it contains no objectionable substances in solution, such as those which cause excessive hardness, corrosive action, or iron troubles. A water which contains a total hardness content of 50 parts per million or less is not classed as a hard water, and will not be found particularly objectionable. There are instances, however, of public water supplies having a total hardness content of 200 or 300 parts per million. These are excessively hard. A hard water enforces an additional expense upon the user if satisfactory results are to be obtained. The increased use of soap in the household may account for an additional expenditure of $10 per million gallons of water pumped. With the excessively hard water this cost may amount to $20 or more. Aside from this there are a number of other costs brought about by the use of a hard water. Certain classes of industries; such as tanneries, sugar refineries, breweries, distilleries, dye works, paper mills, etc., require a fairly soft water to prevent interference with the process carried on. The operation of boilers requires a moderately soft water if efficient and economical steam production is to be obtained. From the standpoint of saving expense to the individual householder or manufacturer, it is economy to soften an excessively hard watter supply before delivering it to the consumers. In most cases the cost of softening will be more than met by the saving to the community as a whole.

SUMMARY AND CONCLUSIONS.

Summarizing the foregoing statements, it is apparent that great importance should be attached to the consideration of quality in fixing the value of a water supply. The financial aspect of the quality of a supply is valuable in determining the actual worth of an installation. In certain cases

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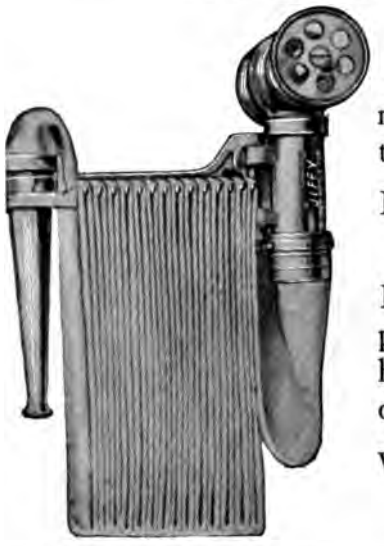

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i the quality is extremely bad the value is respect may be a negative character, : in instances of exceptionally good ty the value of the installation as a e is and should be greatly augmented. will readily be recognized that an ıeer selecting a source of supply for ınicipality must give due consideration e quality of the proposed supply. The ion may hinge upon the selection of a soft polluted surface water or a ground water of good sanitary quality but of objectionable chemical characteristics. In such cases the consideration of allowable expense for improvement and ultimate value as regards quality will usually decide the choice.

In general the conclusions reached are:

1. That a water supply pure in respect to physical, hygienic and chemical quality is a great financial asset to a community.

2. That sanitary, physical and chemical deficiency of quality of a water supply represents an actual financial outlay on the part of the community.

3. That the amount of such outlay often surpasses the cost of improvement of the supply.

4. That considering the financial aspect alone without regard to humanitarian considerations, a city provided with a water supply of unsatisfactory physical, hygienic or chemical quality, can ill afford to maintain it without improvement.

West Virginia State Association Holds Convention.

THE annual convention of the Master Plumbers' Association of West Virginia was held at the Board of Trade rooms, Wheeling, May 28. During the session, which was executive, many matters of importance were transacted. At the conclusion of the meeting it was stated that the master plumbers will make efforts to have the legislature adopt sanitary laws at the next session.

Huntington was selected as the place of meeting for the next convention on the third Tuesday in July, 1914. Theodore Grosscurth, of that city, was named president and Charles F. Brand, also of this city, was chosen secretary-treasurer.

It was planned to have a two days' session, but many of the delegates returned to their homes, and the banquet and bowling party planned for this evening at the Oaks will be given for the few remaining friends.

Where the Hills of Kerry Rise.

By D. J. DONAHOE.

ALL my dreaming is in Erin,
Where the Winter clouds are clearin',
There the throstle's note is ringing,
And the lark is in the skies;
And my heart would fain be going
Where the silver Flesk is flowing,
I would see the fresh green springing
Where the hills of Kerry rise.

Oh, the gloom is disappearin'
From the holy vales of Erin,
And no more the tears of sorrow
Quench the love light of her eyes;
Out of fairy Innisfallen
To my soul a voice is callin',
While the lakes new beauties borrow
Where the hills of Kerry rise.

From the fields and mountain passes
Hie the happy lads and lasses,
And to hail the coming splendor
Send aloft their cheering cries;
Proud of Ireland's ancient story,
Heartened by her rising glory,
Oh, the love is true and tender
Where the hills of Kerry rise.

I behold my land awaking
With the dawn about her breaking,
With the light of faith above her,
And the rapture in her eyes;
So my heart would fain be going
Where the silver Flesk is flowing;
For the hours of grief are over
Where the hills of Kerry rise.

Quality versus Price.

THE above is the title of an excellently printed and valuable booklet just issued by and with the compliments of John A. Murray & Co. (The House of Reliability), 310-312 W. 39th St., New York City.

We are pleased to submit the same in full herewith:

It is rare judgment that can properly differentiate between the good and the bad, and accurately determine when an article is cheap at the price asked. In other words, it's a wise man who can tell when he has a bargain. A bargain has been defined as a transaction in which both sides are satisfied; a trade in which both sides are benefited. But the men disagree on this question, according to their understanding of the word bargain.

One man will buy a certain thing because it offers a lot for his money, regardless of the service it will render, and think he has a bargain. Another man will pay a lot more for a whole lot less goods, because he is buying for service, quality, dependability and not bulk. He knows he has a real bargain. He sees the wisdom of paying a fair price for goods that will last long and give satisfactory service, rather than buy at a low price the kind that will last but a short time, give poor service and cause dissatisfaction.

There are still many who believe it is economy to buy cheap plumbing goods. But their number is growing less. Most buyers now realize that a dollar in value calls for a dollar in money, and that it is true economy to buy that kind—the kind that has genuine quality and lasts, and does not require frequent repairing.

SCANT ECONOMY IN CHEAP GOODS.

Plumbing goods that have nothing but a low price to commend them will not return adequate service, and must soon be repaired or replaced. To the original low price must then be added the additional labor, the annoyance to the consumer, and the loss of his good-will. In the end, the low-priced goods have become high priced. If you buy this class of goods simply because they are cheap in price, you will awaken to a realization of the mistaken policy when they begin to call for repairs and replacing. You will then have the repair bill to pay, or, as is frequently the case, be forced to buy goods of real quality in order to secure the service you want.

LABOR COSTS SAME ON QUALITY GOODS.

It is certainly plain to all that it costs as much to install cheap goods for any service as it does to install good ones, but there the similarity ends. With the installation of quality goods the expense is practically over. With the installation of inferior goods the expense has just begun.

It is far better to pay a better price for a better article—one that will give good service and not require constant repairing and changing. We should never lose sight of the fact that thoroughly satisfying a customer creates good will, and good will is a most important asset in the establishment of a permanent and profitable business

FIRST CONSIDERATION.

A consumer should understand that quality is the first consideration in plumbing goods. A man who wants a good saw does not go to a 10-cent store to get it. He wants one of good metal, with a reputable maker's name back of it, because he wants to have a saw that will last. He will buy of a dealer who can give him the assurance of quality. He should do the same thing with plumbing goods. He should be told that cheap plumbing fixtures are not capable of giving any better service than a 10-cent saw. It's easy to understand that a dependable saw can't be classed with the 10-cent variety, and it's just as easy to understand that high quality plumbing goods can't be classed with the cheap varieties.

It can truthfully be said of goods of quality and undeniable merit, even though they cost more, that they possess better material and better workmanship, which enable the workmen in an enlarged degree to do better work in the fitting. They require less attention for repairs, are certain to give good and reliable service, and consequently remove at once a cause for future complaint.

Is it not true of your watch, your horse, your auto; in fact, anything, that you forget the original price if long and reliable service at small upkeep is returned? In the end, you say you surely had a bargain.

The manufacturer knows just how much it costs to make an article of quality, and knows it must be sold at a certain profit to keep up that quality. He knows also that the same article cannot be made just as good by a competitor using inferior material, cheap labor and cheaper methods.

IMPROVED POLICY OF BUYERS.

As a rule buyers are coming to the point where they place a higher estimate on quality and a lower estimate on price. They are realizing the false economy of being influenced by price, and the true economy of being influenced by quality, value and serviceability. Manufacturers who believe in the quality theory are today putting their names on goods and standing back of them. This is true in nearly every line of business.

In watches, clothing, shoes, furniture, the name of the maker becomes the guarantee to the buyer. He stands back of the retailer, and brings himself right up to the consumer with the assurance that the goods are up to the representations of his salesmen or his advertisements.

It seems to us the part of shrewd business to use only the best there is when it comes to the installation of plumbing. And it seems to us that it would be the part of good business judgment to use only such goods as are guaranteed and backed by the name of the manufacturer on the same.

If these goods fail to return reasonable service for the price charged, the manufacturer is easily traced by the name which appears thereon. It affords a chance for just complaint or friendly suggestion. Neither of these is offensive to the manufacturer; on the contrary, both are welcome. A just complaint is easily remedied, and a suggestion for overcoming some defect developed by local conditions affords the opportunity for an improvement in the goods.

Will Put in a New Heating System.

SELECTMEN of Ware, Mass., are to have a new heating system installed in Town Hall this Summer and will have specifications ready for those who wish to submit bids in a few days.

The present heating apparatus has been in service 25 years.

The Boiler Inspector notified Selectmen that this would be the last year he could pass the boiler used to heat Town Hall.

When the Boiler Inspector's notive was received the Selectmen had the apparatus looked over to have repairs made, but were informed that to put the heating plant in proper shape would cost about $800, with a possibility of the repairs only holding good for three or four years.

The Selectmen have decided that a new heating plant will be cheapest, as it will only cost about $1,000, and will be good for many years.

Work will be started in mid-Summer, so the heat will be ready for Fall.

The usual appropriation of $1,200 for Town Hall maintenance was increased to $2,200 in March, and Selectmen figure that the extra $1,000 will about cover this expense.

Besides the main hall, the plant will heat offices of Town Clerk and Treasurer, Superintendent of Schools, Chief of Police, Water Department, Selectmen, Assessors, Clerks of Courts and District Court room. Lock-up and several dressing and anterooms will also be heated by the new system.

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A Large Plumbing Supply House in the South.

THE General Fire Extinguisher Co., which maintains southern headquarters in Charlotte, of which J. W. Conway is manager, has just announced the addition of a new line of goods to its already big outlay. This is an immense supply of plumbing supplies and fixtures, including all varieties of tubs, lavatories, bathroom articles, and nickel fixtures of all kinds. The General Fire Extinguisher Co. now handles large quantities of goods used in the general plumbing line, such as water pipes, lead pipes, soil pipes, sewer pipes, caps, etc., but has never been able to handle plumbing fixtures in bulk on account of the discriminating freight rates which circumscribed the territory to such an extent as to render such an outlay unprofitable. The general development of this section, added to the prospects for a reduction in freight rates, renders the field there very attractive, and hence the addition of this line.

"We are expecting an adjustment of rates that will enlarge the commercial territory of the Charlotte shippers," said one of the officials recently. "Heretofore it has been impossible for us to quote prices in competition with Richmond and other points, for the reason that the freight rates handicapped us to such an extent that we were beaten before we started the fight. We could hardly get beyond Salisbury and Greensboro on the one side, and Spartanburg and Greenville on the other, and were so hedged about that it was impossible to compete for business. The result was that Richmond and Atlanta and other centers got all the business.

"The situation now is much improved, and we believe that such a line will pay. Hence its addition. We propose to put in one of the biggest, if not the very biggest, stocks of goods to be found in the south. We already carry about $150,000 worth of pipes and other supplies on hand, and operate one of the finest machine shops dealing with such goods in the country. Few Charlotte people have any conception of the size of the local branch. It is the largest of its kind in the south and a close rival of the Providence, R. I., and Warren, O., plants. Whenever a contract is secured for a sprinkler system or other installation handled by the company, the plans are drawn and everything is made in the shop here, so much so that it is only necessary to ship it to the point in question and send men there to put it up.

"There is need of a big plumbing supply house in Charlotte. This is the strategic location, and the section is one that is moving forward rapidly. There are very few cities that do not have sanitary laws, and these ordinances are being more and more rigidly enforced. This means that more and more plumbing supplies are being required. As the case now stands, it is frequently necessary to send off to the manufacturers' supply houses for goods. When this new line is added, we will deal direct, buying from the mills and selling throughout this general territory. It is believed a profitable industry can be built up, one that will be a benefit to all parties concerned."

Will Address the Eastern Supply Association.

RUSSELL C. JONES, traffic manager of the Industrial Traffic Association, Perry building, Philadelphia, Pa., will address the members of the Eastern Supply Association on the subject of "Industrial Traffic Management," at their meeting at the Hotel Dennis, Atlantic City, N. J., June 19, 1913. The question of freight rates, proper routing, etc., is very important to business houses at the present time, and a good attendance of the members is looked for.

Ventilation for Efficiency.

IN many trades contamination of the air of workrooms is inevitable. This leads to what are called occupational diseases. In cotton and wool spinning, for example, the lungs of the operatives almost without exception become affected after a few years. This is true also of stone and metal cutting, where tiny particles are disseminated through the air; the tobacco trade, where heavy fumes from the tobacco leaves aggravate atmospheric conditions already rendered undesirable by tobacco dust.

Only by perfect systems of ventilation can such rooms be made habitable. In some trades, in which fumes from drugs fill the air, it is necessary to place exhaust hoods over the benches or retorts. In cotton spinning vacuum cleaning has been successfully applied to keep the air breathable.

In a Boston tobacco factory recently the ordinary ventilating apparatus was found insufficient to keep the air fresh. The firm installed as an experiment several machines for making ozone and diffusing it in the factory. The effect astonished everyone. All the oppressive fumes vanished, the air was pure and the operatives worked with greater alacrity, consequently increasing their output.

An Indiana Firm Branching Out.

THE Van Arnam Mfg. Co., of Fort Wayne, Ind., manufacturers of plumbers' supplies, is completing completing extensions to the plant on Taylor St. The improvements include a new warehouse, 50x24 feet in dimensions, the completion of which will give the company additional floor space in the main factory building for manufacturing purposes.

The New York City Plumber Needs Science.

THE New York City plumber must be chummy with the "theory of right ascension" and "hep" to "sidereal time," if he wishes to be advanced to a grade higher up, and if there is anyone so foolish as to think it is easy to get on the municipal civil service rolls, let him consider this sad tale. Also let him contemplate the vagaries of the mind that prepare the questions for the unsuspecting applicant for place or advancement.

There is a certain assistant engineer in the Bureau of Public Buildings and Offices in Manhattan. His particular duties are looking after the plumbing in the public baths and matters of similar importance. His salary would not warrant his purchase of a half interest in the United States Steel Corporation. He is, or was, anxious for promotion. At present he is in Grade D on the list of assistant engineers. There was to be an examination for Grade E, the next highest on the lists. Flattering himself that he had a pretty good knowledge of engineering and a fair fund of information, it was with no great amount of trepidation that this assistant engineer went into the examination.

The first questions on the paper were simple enough and were promptly disposed of. Everything was going along beauti-

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fully until the young assistant engineer came across this:

"Explain and illustrate sidereal time."

"I didn't apply for the job of head of the astronomical observatory in Washington," he muttered. "And so far as I know the city does not operate any observatories, although perhaps the top of the Municipal building might be a good place for one."

An answer that was far from technical was written, and then the applicant turned to the next, as follows:

"Explain and give an application of the theory of the right ascension."

"Apparently they want us all to be 'stars,'" he growled, as he passed the question entirely and rapidly finished the remainder of the paper.

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selling in New York, New Jersey, Pennsylvania and New England, desires connection with manufacturers of the following lines: Brass, malleable fittings, soil pipe and fittings, tanks and seats; well acquainted with principal jobbers in above mentioned territory, and have sold them for years. Address "Immediate," care Merchant Plumber and Fitter Publishing Co., 200 Fifth Ave., New York.

Annual Outing and Games of W. G. Cornell Co.'s Employes.

THE employes of all departments of the W. G. Cornell Co. will hold their second annual outing and games at Boehm's South Field Pavilion, New Dorp, Staten Island, on Saturday, July 12. The tickets, including transportation, are $1 each.

Last year's outing was attended principally by the employes only engaged upon the Woolworth building, but this year the entire force of W. G. Cornell's many departments will be present. These, with the officers, heads of departments and many guests, will bring the attendance figures close to a thousand.

Breakfast and dinner will be served. Valuable prizes have been provided for the field and track events, and a bang-up time is promised all those who attend.

A Progressive Boiler Firm.

THE John T. Young Boiler Co., of Norwich, Conn., manufacturers of the celebrated Norwich boilers, are building a new foundry 66 x 136, adjoining their main building and storage warehouse, in order to keep up with their rapidly increasing business. Mr. Young is well-known to the steam and hot water heating trade as having been formerly connected with the Page Boiler Co.

Here and There.

BEN COLES, of Sioux Falls, S. Dak., has landed the contracts for the heating plants in both the Orpheum Theatre and the new First Methodist Church.

T. S. Elwell and Roy Jenkins have opened up a new plumbing shop at 213 North D St., Oskaloosa, Ia. The shop is located at the rear of the lot and has been equipped to handle all work in the plumbing, heating and pump repairing line.

Mark R. Cockrill of Jackson, Tenn., who has sold out his interest in the firm of Cockrill Bros., has opened up a plumbing and heating business at No. 103 College St.

P. J. Kehoe, city plumbing inspector of Des Moines, Ia., will make an inspection of the plumbing in all of the city schools after they are closed in June for the summer vacation. By that time, the inspectors say, the school board will have chosen a plumbing inspector for the schools and together they will work to improve the sanitary conditions of the school buildings.

H. H. Lembke, of Hastings, Nebr., finished a plumbing job this week for Bert Carr for his residence on W. 11th St.

John Dover has let a contract for plumbing of his residence on E. 2d St. to Rutherford Bros., of Hastings, Nebr.

The McDonald bill providing for the proper ventilation and sanitation of workshops, mercantile establishments, mills and factories has passed the lower House of California.

Thomas T. Megerly, of Boyertown, Pa., plumber and steamfitter, was awarded the contract to equip the new cigar factory building with its steamheating and sanitary work.

The Rolla Plumbing Co., of Rolla, Mo., was awarded the contract for the Scott County Court House April 24 on a competitive bid.

The announcement is made that Walt Christianson has purchased a half interest in the business of C. O. Seymour, heating and plumbing, at Mason City, Ia., and will in the future devote his entire time in the interest of the new firm which will now be known as Seymour & Christianson. Mr. Christianson has been connected with various firms in the city for 6 or 7 years and thoroughly knows the heating, steam fitting and plumbing business and will make a valuable addition to this enterprising firm.

W. D. Willson, of Helena, Mont., has assumed his duties as plumbing inspector and has established his headquarters in the council room at the City Hall, where persons intending to do any plumbing in Helena must apply for a permit before starting.

Vacek & Ruckle, sanitary plumbers, have taken possession of the handsome new glass front storeroom of C. C. Stewart, on S. Washington St., Easton, Md., facing the Point Road, and have placed therein a full line of bathroom and gas fixtures from which to make a selection.

The McCarthy & Crandall Plumbing and Heating Co., of Colorado Springs, Colo., has been awarded the contract for the plumbing, heating and ventilating systems in the new buildings at the high school, its bid of $21,083.90 being the lowest submitted on this part of the construction. At the same meeting the contract for installing the generating system in the buildings was awarded to Hendrie & Bolthoff, a Denver firm.

James Stewart, the hustling plumber of Atlantic City, N. J., is installing two heating plants at Spray and Pacific Aves. for M. Quinn; a heating plant at 22 S. Trenton Ave. for A. Sheming, and two heating plants at rear of Spray and Pacific Aves. for M. Quinn.

William C. Shipp has engaged in the plumbing business at 539 Mulberry St., Hagerstown, Md.

San Francisco, Cal., residents will have sea baths in their homes as a result of the introduction of a salt water auxiliary fire system. It will be in operation in two months. The mains, first intended only for fire protection in the business district, will be extended to residence sections.

London cable says one of the best pictures on view there this season is "Surprised at Bathing." Understand bath tubs are not as common there as here.

One of the finest bath houses and swimming pools in southern California is to be erected by the Pacific Electric Co., Urbita Springs Park, near San Bernardino, Cal. The new building will be in the Spanish renaissance style of architecture, and will contain 25 bath rooms beside the swimming pool.

Lewis & Kitchen, of Kansas City, Mo., got the contract for the school heating and plumbing, at $6,873, at Clarkson, Nebr.

DELAWARE and HUDSON CO.

ADVANTAGES OF AN INDUSTRIAL LOCATION

This railroad extends from the coal fields of Pennsylvania to connections with all the great railroads of Canada and the Eastern trunk lines; provides a fast freight service to the East, West, North and South, and parallels the upper Hudson River, also the new two-thousand ton barge canal connecting the river with Lake Champlain, now being built by the state. An establishment located in this territory receives the benefit of cheap fuel, electric power and low freight rates.

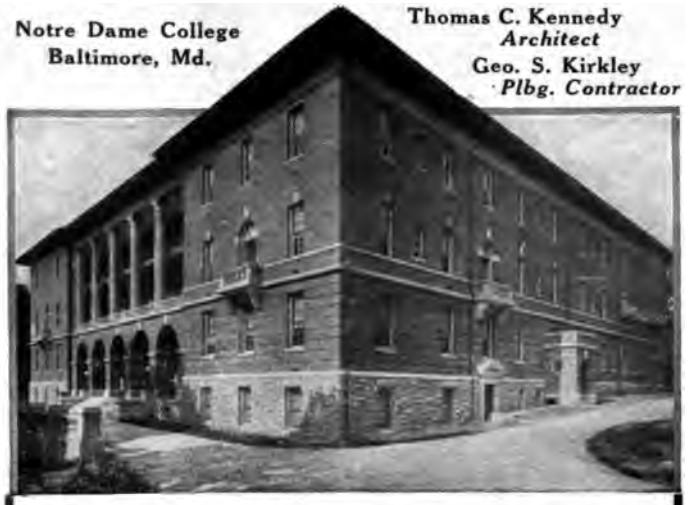
Its Industrial Department will aid in the establishment of industries, develop side track questions and give complete information.

IRA H. SHOEMAKER
INDUSTRIAL AGENT
Albany, N. Y.

THE Continental Hotel
Chestnut St., Corner of Ninth
PHILADELPHIA
REMODELED
REFURNISHED
400 Rooms
200 with Bath
RATES
$1.50 to $5.00
EUROPEAN PLAN
The Best Cafe in the City
FRANK KIMBLE, Manager

Notre Dame College
Baltimore, Md.

Thomas C. Kennedy
Architect
Geo. S. Kirkley
Plbg. Contractor



WOLFF

Plumbing fixtures selected for Notre Dame College will retain their appearance and efficiency of action throughout the life of the building.

Established 1855

L. Wolff Manufacturing Co.

Plumbing Goods Exclusively

General Offices 601-627 W. Lake St. **CHICAGO** Showrooms 111 N. Dearborn St.

Denver—Trenton—Omaha—Minneapolis—Dallas—Rochester

BEGIN RIGHT

Resolve that the New Year will be a happy one. Use wherever possible only materials of highest grade. Just notice how many better jobs require

Monument Quality Ware

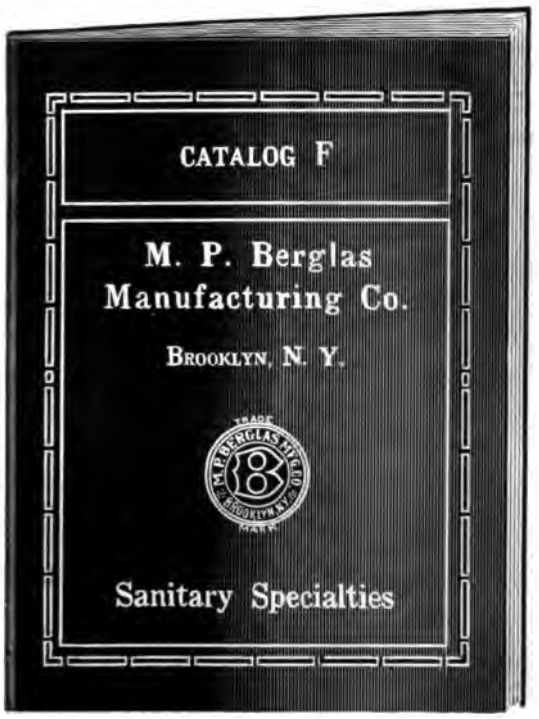
The New Complete ***Monument Catalogue D is ready.***

Architects are specifying Monument Quality Ware, and you should have this book. Write us at once on your letterhead.

The Monument Pottery Co.

TRENTON, N. J.

Our New Catalog—Write for It



TO THE TRADE

In Catalog "F" it has been our aim to make the descriptions as complete and short as possible, and the few illustrations, in their effect, will give you an idea of the grade and quality of **woodware we manufacture.** All our ware is **made strong and durable,** whether varnish finish competition goods, rub polish or piano polish for the better trade, all of which we are prepared to **furnish in any wood desired.**

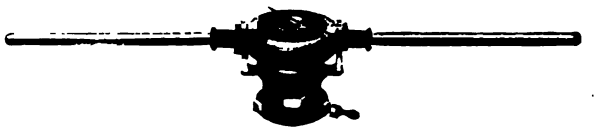
We catalog only the woodware and fixtures we are prepared to furnish for immediate shipment, but wish to draw your attention to the fact that **our plant embraces the most modern and economical equipment to produce the highest type of woodware,** therefore we are prepared to furnish at short notice any style Tank or Seat the trade may require.

For the patronage and favor shown us in the past, we wish to renew our thanks, and again express our appreciation.

THE M. P. BERGLAS MANUFACTURING COMPANY

Fulton and Furman Streets, Brooklyn, N. Y.

Your Pipe Problems



"Beaver" No. 25, 1 in. to 2 in. Die Stock

MANY a time you are confronted by a pipe threading problem which will tax your patience and time to the very limit unless you are equipped with the most adaptable kind of a tool. "BEAVER" Die Stocks ARE the most adaptable kind of tools. They can be adjusted readily to thread pipes of various size—work easily and quickly. No Die Stocks on the market to-day offer such value, such all 'round efficiency as "BEAVERS."

"Beaver" No. 5, ½-in. to 2 in. Square-End Pipe Cutter

THE best known Plumbers and Pipe Fitters in America and abroad are enthusiastically endorsing the "BEAVER" Square-End Pipe Cutter because it cuts a pipe CLEAN leaving absolutely no burr or split.

Ask your jobber today about "BEAVERS."

Send for Pamphlets.

THE BORDEN COMPANY, Warren, Ohio

LAWLER'S AUTOMATIC CELLAR DRAINER

It is the best in the world, for the reason that it does not waste water. It has no equal at any price, yet its price is low, compared with makeshifts.

When you want a Cellar Drainer, get the LAWLER and keep out of trouble.

LAWLER REGULATOR CO.,

473 West Broadway, NEW YORK CITY

Where Quality Rules

German Silver and Copper

Oval Square and Recess (**Pantry Sinks AND Drain Boards**

Get our prices.

Alan R. H. Burk Mfg. Co.

2260-2268 North Philip St., PHILADELPHIA, PA.

Brass Cesspool Strainer

Fig. A-61.

With iron or brass tripod and removable strainer.

Diameter of Flange 5" 6" 6"
Size of Coupling 1¼" 1½" 2"
Write for net price per dozen

Write for Catalog "A" 1911 which tells you all about our Plumbers' Brass Goods.

The Trenton Brass & Machine Co.

TRENTON, N. J., U. S. A.

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Volume III. No. 2.
Semi-Monthly.
10c. a Copy. $1.00 Per Year.

NEW YORK, JANUARY 10, 1913.

Entered as second-class matter December 28, 1911, at the post office at New York, N. Y., under act of March 3, 1879.

FLUSHO VALVES

13 Different Styles

Handle, top or front push button, special valves for enclosed work, with and without integral stops.

In use in such buildings as the *Vanderbilt Hotel, Elks' Club, Siegel Cooper Stores.*

Our Motto: Best Goods, Prompt Service, Moderate Prices. Write for Catalogue.

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QUALITY TOOLS

Manufactured by us are sold by leading jobbers

OUR TOOL DISPLAY BOARD

exhibits forty tools showing finish, design and workmanship. When hung in a prominent place in the store this **Quality Display Tool Board** attracts the attention of all those who enter or leave. **We will give jobbers** this display board for a $50.00 order for the best tools being sold to-day.

We guarantee the sale of **Quality Tools** to you. If you are not satisfied with your investment you are privileged to return your entire purchase to us. Write us for Tool Catalog, Cost and Resale Sheets.

Woodward Wanger Co.

1105 VINE STREET - PHILADELPHIA, PENN.

Look for the "NACO" LABEL

on an article

The manufacturer's guarantee is back of it

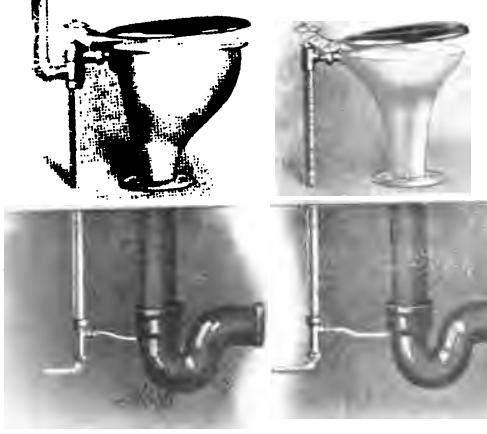
National Committee of the Confederated Supply Associations

VOGEL Patent
Frost-Proof Closets

Save Water—Require No Pit

Bowls Have Enameled Rims

No. 1. No. 2.



Contain no cup leathers, ring washers, or complicated mechanisms.

They are simply and durably constructed and are very neat in appearance.

Absolutely Frost-Proof When Properly Installed.

Many thousands of these closets have been sold throughout the country and are giving satisfaction.

Outfits Are Now Fully Tested Under Hydraulic Pressure.

Prices are Reasonable. *For Sale by Jobbers.*

JOSEPH A. VOGEL CO.

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Ronalds & Johnson Company

54 Cliff Street, New York City

Manufacturers and Jobbers of High Grade

Plumbing Fixtures

One of the oldest plumbing supply houses in New York

In the heart of the down-town district, and best equipped for out-of-town shipments.

Easily accessible from the Hudson and other railroad terminals, and all the river and harbor steamboat landings at our very doors.

Unexcelled stock—three warehouses in Greater New York from which to draw—guaranteeing prompt shipments.

We make a specialty of high-grade work for hotels, office buildings, residences, etc., and our "Rex" Fixtures are specified by many of the leading architects.

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SIZES: { 18 x 24, 18 x 30, 18 x 36, 20 x 24, 20 x 36, 22 x 24, 22 x 30

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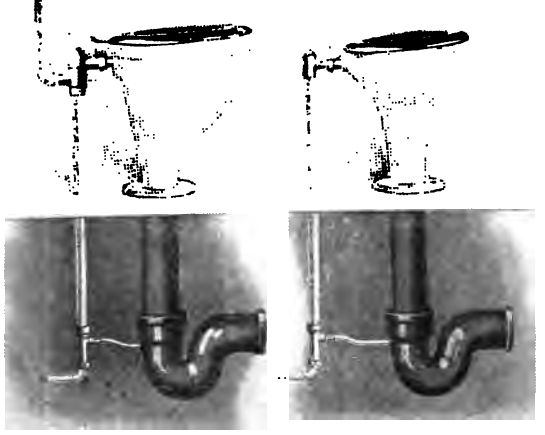

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The CONTINENTAL FILTER

The standard for high-class residence installation for the past quarter century

BECAUSE

it combines these important features:

1. **DOUBLE FILTRATION**
   First through sand, then through bone-charcoal.
2. **SLOW FILTRATION**
   Obtained by a large filtering area.
3. **THOROUGH FILTRATION**
   Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. **SIMPLICITY OF OPERATION**
   Each cylinder controlled by a single valve, making no expert care necessary.
5. **AUTOMATIC AERATING DEVICE**
   By means of which the filter beds are thoroughly agitated and aerated each time they are cleaned and the material is thus kept clean and fresh.

The New York Continental Jewell Filtration Co.

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NEW YORK, FEBRUARY 25, 1913

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The Bullard Adjustable Roof Flange

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Volume III. No. 6. Semi-Monthly. 10c. a Copy. $1.00 Per Year.

NEW YORK, MARCH 10, 1913

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15 BROAD STREET, NEW YORK

1913

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Volume III. No. 7.
Semi-Monthly.
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NEW YORK, MARCH 25, 1913

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Hand-made of heavy tank plate, and is thoroughly galvanized inside and outside.

Will stand a high pressure and intended for use where ordinary boilers are not serviceable.

Thoroughly seasoned, being kept under pressure for several days, thus avoiding annoyance from leakage.

Coated with heat-proof blue enamel.

Will stand 300 pounds test, and is warranted for six years.

Made in 11 sizes, having capacities from 24 to 100 gallons.

Write for circular giving prices, etc.

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NEW YORK

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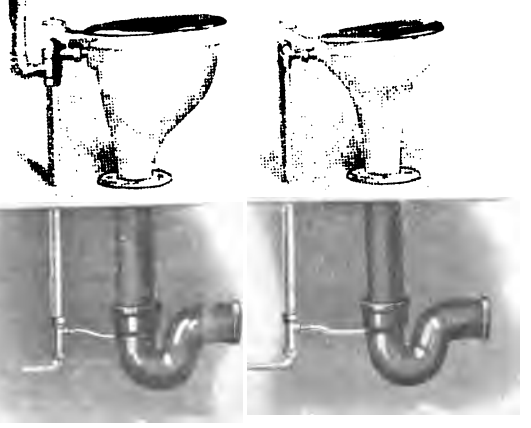

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Volume III. No. 8.
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2. SLOW FILTRATION
   Obtained by a large filtering area.
3. THOROUGH FILTRATION
   Filtering material in each cylinder being 3 ft. in depth, making an aggregate depth of 6 ft.
4. SIMPLICITY OF OPERATION
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5. AUTOMATIC AERATING DEVICE
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Volume 111. No. 9.
Semi-Monthly.
10c. a Copy. $1.00 per Year.

NEW YORK, APRIL 25, 1913

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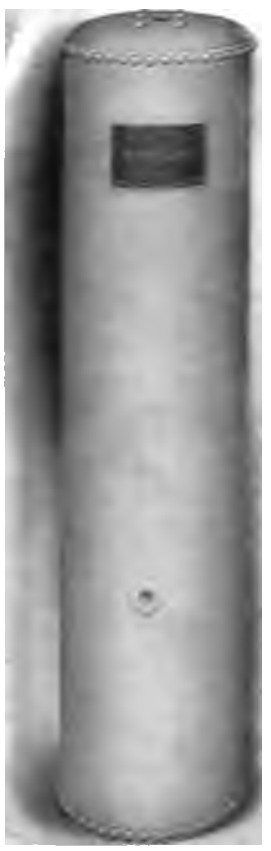

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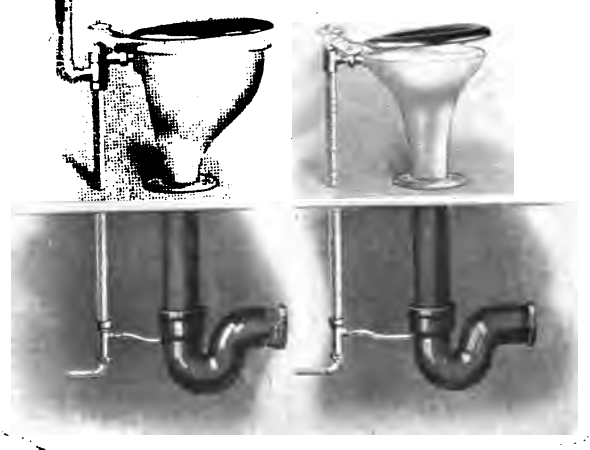

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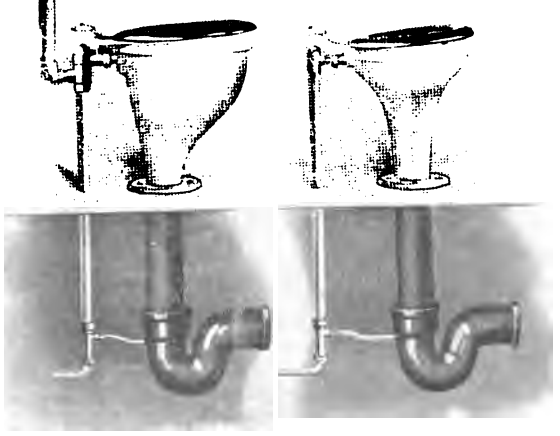

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